100-1025

11-20-2003



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

NOV 2.0 2003

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Greg Watson Syngenta Crop Protection, Inc. PO Box 18300 Greensboro, NC 27419-8300

Dear Mr. Watson:

Subject: First Aid Revisions Per PR Notice 2001-1 Product: Eptam 7E Selective Herbicide Registration Number: 100-1025 Your Submissions Dated: 01/24/03 and 06/23/03

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable, provided you make the following changes before you release the product for shipment.

1. Add "or rinsate" after "washwaters" in the Environmental Hazards section on page 4. Also in the Environmental Hazards section add, "This chemical is toxic to mammals" to the beginning of the paragraph.

2. Under Commercial (for hire) Handlers engaged in impregnating this product onto dry bulk fertilizers must:

Add, "Use a closed system that meets the requirements listed in the Worker Protection Standard for agricultural pesticides (40 CFR 170.240 (d) (4))."

3. Please provide a registration number and label for a Treflan EC product with a product name of Treflan EC that has beans (green and dry) on the label. The product with the name Treflan EC in Agency records is registered for use on ornamental plants.

Submit three (3) copies of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted labels. A stamped copy of labeling is enclosed for your records.

Sincerely

Jim Tompkins Product Manager, Team 25 Herbicide Branch Registration Division

Enclosure

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# EPTAM® 7-E Selective Herbicide - Emulsifiable Liquid

Multiple Crop Herbicide for Broadleaf and Grass Weed Control

ACTIVE INGREDIENT:	
EPTC: S-ethyl dipropylthiocarbamate	87.8%
INERT INGREDIENTS:	<u> 12.2%</u>
Total	100.0%

Contains 7 pounds active ingredient per gallon.

# KEEP OUT OF REACH OF CHILDREN

WARNING

See additional precautionary statements and directions for use (inside booklet; on back panel; on side panel)

EPA Reg No. 100-1025 EPA Est No. xxxx

> Product of Hungary Formulated and Packaged in USA

> Syngenta Crop Protection, Inc. Greensboro, North Carolina 27409 www.syngenta-us.com

SCP xxxx

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2.5 gallons U.S. Standard Measure ACCEPTED with COMMENTS in EPA Letter Dated

NOV 20 2003

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

100-1075

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FIRST AID		
If in eyes:	<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 rinsing.</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>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to 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>	
HOTLINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call 1-800-888-8372		
Have the product container or label with you when calling a poison control center or doctor or going for treatment.		
	NOTE TO PHYSICIAN sal damage may contraindicate the use of gastric lavage. ntains EPTC, a thiocarbamate that inhibits cholinesterase. If symptoms of	

This product contains EPTC, a thiocarbamate that inhibits cholinesterase. If symptoms of cholinesterase inhibition are present, atropine by injection is antidotal. Pralidoxime chloride (2-PAM) is NOT recommended as an antidote for this compound. Thiocarbamates have been shown in laboratory animals to cause a disulfiram (Antabuse) -type reaction in combination with alcohol.

# PRECAUTIONARY STATEMENTS

# Hazards to Humans and Domestic Animals

# WARNING

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Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing vapor or spray mist.

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#### 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 E on an EPA chemical resistance category selection chart.

Mixers, Loaders, and Handlers exposed to the concentrate must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or viton
- Chemical-resistant apron
- Chemical-resistant footwear and socks
- Protective eyewear

In addition to the above PPE, persons Mixing and Loading into chemigation systems, must wear:

 a NIOSH approved respirator with: an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C); or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G); or a NIOSH approved respirator with an (OV) cartridge; or a canister with any N, R, P, or HE prefilter.

Applicators and other Handlers exposed to the dilute must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

In addition to the above PPE, applicators using back-pack or hand-held equipment must wear:

 chemical-resistant gloves such as barrier laminate or nitrile rubber or neoprene rubber or viton

In addition to the above PPE, applicators applying dry bulk fertilizers with a specialized truck designed to treat more than 80 acres, must wear:

 a NIOSH approved respirator with: an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C); or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G); or a NIOSH approved respirator with an (OV) cartridge; or a canister with any N, R, P, or HE prefilter.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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# **Engineering Controls**

Commercial (for-hire) Handlers engaged in impregnating this product onto dry bulk fertilizer must:

- wear the personal protective equipment required for mixers/loaders, except shoes may be substituted for chemical-resistant footwear, and
- have immediately available for use in case of an accident a NIOSH approved respirator with: an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C); or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G); or a NIOSH approved respirator with an (OV) cartridge; or a canister with any N, R, P, or HE prefilter.

When other 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)(4-5)], the handler PPE requirements may be reduced or modified as specified in the WPS. IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

# **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

Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark.

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# **GENERAL PRECAUTIONS AND RESTRICTIONS**

Read all label directions before using.

EPTAM® 7-E selective herbicide should be used only for recommended purposes and recommended rates. DO NOT OVERDOSE.

EPTAM 7-E is recommended for use on mineral soils only (soils containing less than 10% organic matter).

Keep container tightly closed when not in use. Do not store near seeds or fertilizers. Store out of reach of children, pets, and domestic animals.

Rinse spray equipment and empty container.

Apply this product only as specified on this label.

Aerial application is prohibited.

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#### SPECIAL PRECAUTIONS FOR CROP USES

For incorporated applications, use equipment which has been proven to incorporate thoroughly to the recommended depth.

In irrigated areas, do not apply EPTAM 7-E prior to preirrigation.

Tank mix this product with fungicides, insecticides, or herbicides only as recommended.

When properly applied and weather conditions exist for normal plant growth through the season, EPTAM 7-E will not harm the treated crop nor should harmful soil residues remain beyond harvest. However, during germination and early growth, extended periods of unusually cold and wet or hot and dry weather, insect, nematode, or plant disease attack, carry-over soil residues of certain persistent herbicides, the use of certain soil applied systemic insecticides, highly saline or alkaline soil conditions, improperly placed fertilizers or soil insecticides may create abnormal conditions that weaken crop seedlings. Also some of these abnormal conditions may weaken established crops: alfalfa, almonds, etc. EPTAM 7-E used under these abnormal conditions could result in crop injury.

# SPECIAL PRECAUTIONS FOR ORNAMENTAL USES

EPTAM 7-E must be thoroughly mixed into the soil for all ornamental uses.

EPTAM 7-E may cause injury to ornamentals under certain soil and climatic conditions or if directions are not followed.

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# WEEDS CONTROLLED

EPTAM 7-E will not control established weeds.

# ANNUAL GRASSES:

Annual Bluegrass Annual Ryegrass (Italian Ryegrass) Barnyardgrass (Watergrass Junglerice) Bermudagrass (Seedlings) Crabgrass **Giant Foxtail** Goosegrass Green Foxtail Johnsongrass (Seedlings) Lovegrass (Stinkgrass) Panicum, Fall Panicum, Texas\* Rescuegrass Sandbur, Field Shattercane\*\* Signalgrass Volunteer grains\* (Barley, Oats, Wheat) Wild Oats\* Witchgrass\* Yellow Foxtail

#### Poa annua

Lolium multiflorum

Echinochloa spp. Cynodon dactylon Digitaria spp. Setaria faberi Eleusine indica Setaria viridis Sorghum halepense Eragrostis cilianensis Panicum dichotomiflorum Panicum texanum Bromus willdenowii Cenchrus pauciflorus Sorghum bicolor Brachiaria spp.

Avena fatua Panicum capillare Setaria glauca

\*May not be controlled at less than 3-1/2 pints of EPTAM 7-E per acre. \*\*May not be controlled at less than 7 pints of EPTAM 7-E per acre.

# ANNUAL BROADLEAF WEEDS:

Tall Morningglory Black Nightshade\* Carpetweed Chickweed, Common Corn Spurry Cutleaf Nightshade\* Deadnettle (Henbit) Fiddleneck Florida Pusley Hairy Nightshade\* Lambsquarters, Common\* Nettleleaf Goosefoot Purslane, Common Prostrate Piqweed\* Prickly Sida\* Redroot Pigweed\* (Common Pigweed) Sicklepod **Tumble Pigweed** 

Ipomoea purpurea Solanum nigrum Mollugo verticillata Stellaria media Spergula arvensis Solanum triflorum Lamium amplexicaule Amsinckia spp. Richardia scabra Solanum sarachoides Chenopodium album Chenopodium murale Portulaca oleracea Amaranthus blitoides Sida spinosa

Amaranthus retroflexus Cassia obtusifolia Amaranthus albus

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The annual broadleaf weeds listed above will be controlled only if treatment is made when conditions are favorable for weed germination and growth. Broadleaf weeds may only be suppressed at less than 3-1/2 pints EPTAM 7-E per acre in heavier soils or under very cold soil conditions.

\*May not be controlled at less than 4-1/2 pints of EPTAM 7-E per acre.

#### PERENNIAL WEEDS:

Bermudagrass Purple Nutsedge\* Quackgrass Yellow Nutsedge\* Mugwort (Chrysanthemumweed)\*\* Cynodon dactylon Cyperus rotundus Agropyron repens Cyperus esculentus Artemisia vulgaris

- \* May not be controlled at less than 3-1/2 pints of EPTAM 7-E per acre.
- \*\* Controlled by high EPTAM 7-E rates specified for use on certain ornamentals only. See ornamental instructions for specific uses.

Perennial weeds must be turned under and chopped up thoroughly prior to treatment. The underground rhizomes of quackgrass and the rhizomes and stolons of bermudagrass must be cut up thoroughly so that four or less nodes remain on a strand. For the suppression or control of quackgrass and bermudagrass the disc must be set to cut 6 inches deep. Use 4-1/2 to 7 pints EPTAM 7-E for quackgrass and 3-1/2 to 7 pints for bermudagrass. The EPTAM 7-E should be incorporated by discing or applied in the irrigation water after the rhizomes and stolons have been cut up. <u>Consult instructions for crops on which these higher rates may be used</u>. Nutsedge may not be controlled by water-run applications in heavier soils.

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# 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 Syngenta Crop Protection, Inc. or Selier. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Syngenta and Seller harmless for any claims relating to such factors.

Syngenta 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 Syngenta, and Buyer and User assume the risk of any such use. Syngenta 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 Syngenta 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 SYNGENTA 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 SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Syngenta 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 Syngenta.

# **DIRECTIONS FOR USE - CROP SECTION**

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
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or viton
- Shoes plus socks

# NONAGRICULTURAL 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 the treated area until sprays have dried and incorporation (if required) is complete.

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# STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or and disposal. Open dumping is prohibited.

**PESTICIDE STORAGE:** Keep container tightly closed when not in use. Do not store near seeds, fertilizers or foodstuffs. Can be stored at temperatures as low as minus 50°F.

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

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

# FOR BULK AND MINI-BULK CONTAINERS

**CONTAINER DISPOSAL:** Reseal container and offer for reconditioning, or triple rinse (or equivalent) and offer for recycling or reconditioning, or clean in accordance with manufacturer's instructions.

**CONTAINER PRECAUTIONS:** Before refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices.

REFILL ONLY WITH EPTAM 7-E. The contents of this container cannot be completely removed by cleaning. Refilling with materials other than EPTAM 7-E will result in contamination and may weaken container.

After filling and before transporting, check for leaks.

Do not refill or transport damaged or leaking container.

# CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATERI

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EPTAM 7-E is a selective herbicide which for most uses must be mixed (incorporated), or injected subsurface into the soil, or applied in the irrigation water for control of weeds listed on this label. EPTAM 7-E controls weeds by interfering with normal germination and seedling development. EPTAM 7-E does not control established or germinated weeds present at application.

# APPLICATION DIRECTIONS

Pour the recommended amount of EPTAM 7-E into the spray tank during the filling operations. Apply in 10 to 50 gallons of water per acre using a properly calibrated, low-pressure sprayer having good agitation. The soil should be well worked and dry enough to permit good soil mixing (incorporation).

EPTAM 7-E may be combined with solution, slurry or suspension fertilizers. However, physical compatibility with these fluid fertilizers must be determined before combining in the spray tank. See Appendix I for special directions regarding these combinations. Even though found to be compatible, constant agitation is necessary to keep the EPTAM 7-E uniformly mixed with the fluid fertilizer.

For all band applications, reduce dosage proportionately depending upon row spacing and band width to be treated.

# IMPREGNATION ON DRY FERTILIZER

EPTAM 7-E may be impregnated on dry fertilizer for use on registered crops. However, uniform distribution of the EPTAM 7-E on fertilizer particles and uniform application are necessary to assure good results. See Appendix II directions for impregnation and use.

#### INCORPORATION DIRECTIONS

EPTAM 7-E and EPTAM 7-E tankmixes must be incorporated (mixed thoroughly) into the top 2 to 3 inches of soil immediately to prevent loss of the herbicide. Whenever possible, application and incorporation should be done in the same operation.

**SOIL MIXING (INCORPORATION) BEFORE PLANTING:** The following equipment commonly is used for soil mixing (incorporation) before planting:

**Power Driven Cultivation Equipment** (recommended on all soil types) set to cut to a depth of 2 to 3 inches.

**Tandem Discs** (recommended on all soil types) set to cut to a depth of 4 to 6 inches, operated at 4 to 6 mph followed by a spiked-tooth harrow or some other leveling device which extends beyond the ends of the discs. For more thorough mixing (for perennial grasses and in heavier soils) disc in two different directions (cross disc). The second pass should be slightly shallower than the first.

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**Field Cultivators** (recommended for spring application on coarse textured soils, and for fall application on all soils. Use only on soils in good tilth). Use 3 to 4 rows of sweeps, spaced at 7 inch or less intervals and staggered so that no soil is left unturned, followed by a spiked-tooth harrow pulled behind the cultivator. Do not use chisel plows to incorporate. Set the cultivator to cut 4 inches deep, operated at 5 mph or more. Run the equipment over the field twice, the second run at an angle to the first.

**Rotary Ground Driven or Spring-Tooth Cultivators** (recommended on coarse and medium textured soils in good tilth only). Set to penetrate to a depth of 4 to 6 inches and operated at 5 to 8 mph in two different directions.

**SOIL MIXING (INCORPORATION) AFTER PLANTING:** The following equipment commonly is used for soil mixing (incorporation) after planting:

Power driven cultivation equipment (recommended on all soil types) set to cut to a depth of 2 to 3 inches and operated at 6 to 8 mph.

Rolling cultivators (recommended on coarse and medium textured soils only) set to cut to a depth of 2 to 3 inches and operated at 6 to 8 mph.

Rotary hoes or row wheels (recommended on coarse textured soils only) set to cut to a depth of 1 to 1-1/2 inches and operated at 6 to 8 mph.

#### Precautions:

In established crops, adjust equipment to throw soil toward the base of the crop.

Take care not to disturb the crop seed or seedling when incorporating after planting.

Shallow incorporation with implements set to cut less than 2 inches deep may result in erratic weed control.

# SUBSURFACE APPLICATION

# AT PLANTING OR POSTEMERGENCE

Apply EPTAM 7-E in 10 or more gallons of water per acre.

Special equipment designed for subsurface application MUST be used. Injector and sweep units must be rigidly mounted on the planter or cultivation unit. When using sweeps at planting, they must be mounted ahead of the planters.

**SOIL INJECTION:** Injector shanks must be spaced 2-1/2 to 3 inches apart and mounted in staggered positions to avoid trash buildup. Set shanks to inject EPTAM 7-E 2 to 3 inches below the soil surface. The width of the band in which weed control is desired will determine the number and spacing of injector shanks required per row. (Example: Four injector shanks spaced 3 inches apart give a 12-inch band). A broadcast application can be made by increasing the number of shanks. The two shanks adjacent to the drill row must be 1-1/4 to 1-1/2 inches on either side of it, EXCEPT IN COTTON WHERE THE DISTANCE MUST BE 4 INCHES ON EITHER SIDE OF THE DRILL ROW, AND SUGAR BEETS WHERE THE DISTANCE MUST BE 2-3/4 INCHES ON EITHER SIDE OF THE DRILL ROW.

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**COVERED SWEEPS:** Set the sweeps to run below the soil surface deep enough to cover the EPTAM 7-E with 2 to 3 inches of soil. Calibrate by measuring the spray band width at the back of the sweep, not the sweep width. For broadcast applications, stagger sweeps on double tool bar so they overlap sufficiently to allow spray bands to meet.

**NOTE:** When applying with either injectors or sweeps, EPTAM 7-E must be applied deep enough to allow 2 to 3 inches of soil to remain over the treatment after the planting operations.

# PLANTING DIRECTIONS

For preplant applications, seeding should be done as soon as possible after treatment to obtain a maximum period of weed control.

# **IRRIGATION APPLICATION**

## Postplanting and Established Crops

Meter EPTAM 7-E into the irrigation water using a metering device that will introduce a constant flow into the water. For flood, furrow, or sprinkler irrigation, meter the EPTAM 7-E into the water during the entire period OR, for sprinkler irrigation, the EPTAM 7-E may be metered into sufficient water to penetrate to a depth of 3 to 4 inches. Time this EPTAM 7-E application to ensure that proper penetration of the herbicide corresponds with the end of the irrigation period. Flush the lines and then turn the water off promptly. Consult instructions on this label for proper timing of application for each crop for which irrigation application is recommended. A flow rate chart for water run applications is found in Appendix III of this booklet.

#### Use Precautions for Sprinkler Irrigation Systems

Apply this product only through sprinkler, including center pivot, flood (basin) or furrow irrigation systems. 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, you should 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.

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.

Application of more than label recommended quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness.

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.

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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, solenoidoperated 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, when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained.

Any alternative to the above required safety devices must conform to the list of EPA approved alternative devices.

## Use Precautions for Flood or Furrow Irrigation

Tailwater (runoff water) from flood or furrow irrigation should be recirculated or used only on other crops which are registered for this type of application.

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.

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 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, solenoidoperated 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.

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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.

Any alternative to the above required safety devices must conform to the list of EPA approved alternative devices.

# CULTURAL PRACTICES FOLLOWING APPLICATION

Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control. When cultivating for any reason, it should be shallow, i.e., no more than ½ the depth the herbicide was incorporated or injected. Preemergence or postemergence herbicides may be necessary to control weeds resistant to EPTAM 7-E.

# **REGIONAL USE MAP**

Add Regional Use Map

# APPLICATION INSTRUCTIONS

All application instructions are given on a regional basis. There are five regions, as delineated on the U.S. map printed on previous page. USE THE INSTRUCTIONS IN YOUR REGION ONLY.

# RATE CONVERSION TABLE

Dosage rates in this booklet are expressed as pints EPTAM 7-E per acre. The following table shows pints EPTAM 7-E per acre in the left column and the equivalent amount of active ingredient per acre in the center column.

PINTS EPTAM 7-E PER ACRE	LB. ACTIVE INGREDIENT PER ACRE	ACRES TREATED BY ONE GALLON EPTAM 7-E
1-1/4	1	7
1-3/4	1-1/2	4-2/3
2-1/4	2	3-1/2
3-1/2	3	2-1/3
4-1/2	4	1-3/4
5-1/4	4-1/2	1-1/2
5-3/4	5	1-2/5
7	6	1-1/6
8-1/2	7-1/2	1
17	15	1/2

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# NORTHERN REGION

These instructions are given as the broadcast (overall) rates of EPTAM 7-E per acre. For band treatment, use proportionately less material per acre depending upon the width of the band to be treated and the crop row spacing. Do not use band application on rocky ground because thorough incorporation is not possible.

ALFALFA\*, BIRDSFOOT TREFOIL, CLOVERS, LESPEDEZA: Do not use EPTAM 7-E if a grass or grain nurse crop is to be planted with the legume. Do not use on white dutch clover. Apply and incorporate 3-1/2 to 4-1/2 pints EPTAM 7-E per acre just before planting. Temporary crop stunting and sealing of the first leaves will occur if conditions for germination and growth are not optimum (e.g. lack of moisture), and will be relieved by irrigation or adequate rainfall.

## OR

ALFALFA\* (FOR CONTROL OF ANNUAL GRASSES GROWING FROM SEED ONLY): Apply and incorporate 2-1/4 pints EPTAM 7-E per acre just before planting. Temporary crop stunting and sealing of the first leaves will occur if conditions for germination and growth are not optimum.

\* Alfalfa is sensitive to soil residues of Atrazine. Do not use EPTAM 7-E on alfalfa if Atrazine was applied within the previous 12 months.

#### AND/OR

ALFALFA (ESTABLISHED STANDS): Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the irrigation water applied to established stands prior to weed emergence. Use the lower rate on very coarse textured soils. Do not apply within 14 days of harvesting or grazing alfalfa.

LADINO CLOVER (ESTABLISHED STANDS): Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the irrigation water applied to established stands prior to weed emergence. Use the lower rate on very coarse textured soils. Do not apply within 45 days of harvesting or grazing.

**BEANS, GREEN OR DRY:** Do not use EPTAM 7-E on Adzuki beans, cowpeas (black-eyed peas, black-eyed beans), soybeans, lima beans, Mung beans, Garbanzo beans or other flatpodded beans except Romano. Under abnormal weather conditions, stunting may occur on Gratiot, Michilite, Sanilac, Seafarer, and Seaway varieties. Do not exceed 3-1/2 pints EPTAM 7-E per acre on small white beans or green beans grown on coarse textured soils. Do not exceed 9-3/4 pints EPTAM 7-E per acre per crop.

**Fall Application: (Dry Beans, Minnesota and North Dakota only):** Apply and incorporate in the late fall before the ground freezes. Use 4-1/2 pints EPTAM 7-E per acre on coarse textured soils and 5-1/4 pints EPTAM 7-E per acre on medium and fine textured soils.

**Application At Planting:** Apply and incorporate just before planting or meter into the irrigation water before or immediately after planting, 3-1/2 to 4-1/2 pints EPTAM 7-E per acre. Rotary hoe lightly during or shortly after emergence of the beans to break any crust which occurs. **AND/OR** 

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Lay-by

**Directed Application:** At time of last cultivation for the season apply and incorporate 3-1/2 to 4-1/2 pints EPTAM 7-E per acre. Apply as a directed spray to the soil at the base of the plants before bean pods start to form. Do not feed or pasture vines to livestock within 45 days after application.

# OR

**Irrigation Application (Dry Beans Only):** Meter 3 ½ to 4 ½ pints of Eptam 7-E per acre into the irrigation water after clean cultivation. Apply before bean pods start to form. Do not feed or pasture vines to livestock until 45 days after application.

#### TANK MIXTURES:

EPTAM 7-E TANK MIXTURES FOR BEANS IN NORTHERN REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.		
PRODUCTS	COMMENTS	
EPTAM 7-E/Treflan E.C. EPTAM 7-E/Dual 8-E EPTAM 7-E/Lasso 4-E EPTAM 7-E/Prowl 4-E EPTAM 7-E/Sonalan E.C.	Green and Dry Beans Dry beans only Dry beans only Dry beans only Dry beans only	

**CASTOR BEANS:** Apply and incorporate 2-1/4 pints EPTAM 7-E per acre immediately after planting. Use a rotary hoe for incorporation. Early cultivation after EPTAM 7-E application enhances weed control.

**POTATOES, IRISH:** Do not exceed 14 pints EPTAM 7-E per acre per crop. The Superior variety potato is sensitive to EPTAM 7-E and under stress conditions, early season stunting may occur.

**Fall Application: (Minnesota, North Dakota):** Apply and incorporate in the late fall before the ground freezes. Use 5-1/4 pints EPTAM 7-E per acre on coarse textured soils and 7 pints EPTAM 7-E per acre on medium and fine textured soils.

# Preplant

Apply and incorporate 3-1/2 to 7 pints EPTAM 7-E per acre. For quackgrass and nutsedge control, use the higher rate.

OR

#### Drag-off (Come up, Weeding Time)

Apply and incorporate 3-1/2 to 7 pints EPTAM 7-E per acre. For nutsedge control, use the higher rate. The field first must be "dragged-off", followed by EPTAM 7-E application and incorporation. Use spiked-tooth harrows or cultivation equipment for incorporation.

# OR

#### Lay-by

Apply and incorporate 3-1/2 to 4-1/2 pints EPTAM 7-E per acre to clean cultivated soil after potato plants have emerged from the soil. Do not apply within 45 days of harvest.

# AND/OR

**Irrigation:** Meter up to 3-1/2 pints EPTAM 7-E per acre into the irrigation water after clean cultivation. Do not apply within 45 days of harvest.

# TANK MIXTURES:

# EPTAM 7-E TANK MIXTURES FOR POTATOES IN NORTHERN REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.

PRODUCTS EPTAM 7-E/Metribuzin EPTAM 7-E/Matrix®

SAFFLOWER: Apply and incorporate 3-1/2 pints EPTAM 7-E per acre just before planting.

#### SUGAR BEETS:

**Fall Application (Minnesota, North Dakota):** Apply and incorporate in the late fall before the ground freezes. Use 4-1/2 pints EPTAM 7-E per acre on coarse textured soils and 5-1/4 pints EPTAM 7-E per acre on medium and fine textured soils.

Preplant (lowa, Eastern Nebraska, North Dakota, South Dakota, Minnesota, Michigan): Apply and incorporate 2-1/4 pints EPTAM 7-E per acre on coarse textured soils, or 3-1/2 pints per acre on medium and fine textured soils just before planting. Injury will occur if conditions for germination and growth are not optimum.

#### OR

## Postemergence (After the First True Leaves Have Formed)

**Irrigation Water:** Meter 3½ pints EPTAM 7-E per acre into the irrigation water after clean cultivation. Do not exceed 7 total pints EPTAM 7-E per acre per crop. Do not apply within 49 days of harvest.

**Incorporation:** Apply 3-1/2 pints EPTAM 7-E per acre after thinning and clean cultivation and incorporate to a depth of 2 to 3 inches. Treatment may be used following a fall application of EPTAM 7-E at recommended rates.

# OR

**Subsurface Injection:** Apply 3-1/2 pints EPTAM 7-E per broadcast acre, or in band treatment (using 2 shanks per row 5-1/2 inches apart centered on the drill row with rows 22 inches apart) use 1-3/4 pints EPTAM 7-E per acre. Prior to application, a clean cultivation must be made for all existing weed growth to be destroyed.

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TANK MIXTURES:

EPTAM 7-E TANK MIXTURES FOR SUGAR BEETS IN NORTHERN REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.		
PRODUCTS	COMMENTS	
EPTAM 7-E/RO-NEET 6-E	Michigan, Minnesota, Ohio and Red River Valley of North Dakota only.	

#### SUNFLOWER:

Spring Application (Colorado, Kansas, Minnesota, Nebraska, North Dakota, South Dakota): Apply and incorporate 2-1/2 to 3-1/2 pints EPTAM 7-E per acre just before planting. Use the lower rate on lighter soil.

**Fall Application (Minnesota, North Dakota):** Apply and incorporate in the late fall before the ground freezes. Use 4-1/2 pints EPTAM 7-E per acre on coarse textured soils and 5-1/4 pints EPTAM 7-E per acre on medium and fine textured soils.

TANK MIXTURES:

EPTAM 7-E TANK MIXTURES FOR SUNFLOWERS IN NORTHERN REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.		
PRODUCTS	COMMENTS	
EPTAM 7-E/Treflan E.C.	Colorado, Kansas, Minnesota, Nebraska, North Dakota, and South Dakota only.	

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# SOUTHEASTERN REGION

These instructions are given as the broadcast (overall) rate of EPTAM 7-E per acre. For band treatment, use proportionately less material per acre depending on the width of band to be treated and the crop row spacing. Do not use band application on rocky ground because thorough incorporation is not possible.

ALFALFA\*, BIRDSFOOT TREFOIL, CLOVERS, LESPEDEZA: Do not use EPTAM 7-E if a grass or grain nurse crop is to be planted with the legume. Do not use on white dutch clover. Apply and incorporate 3-1/2 pints EPTAM 7-E per acre just before planting. (For fall seeded alfalfa in South Carolina only, apply and incorporate 1-3/4 pints EPTAM 7-E per acre just before planting.) Temporary crop stunting and sealing of the first leaves will occur if conditions for germination and growth are not optimum (e.g. lack of moisture), and will be relieved by irrigation or adequate rainfall.

\* Alfalfa is sensitive to soil residues of Atrazine. Do not use EPTAM on alfalfa if Atrazine was applied within the previous 12 months.

**BEANS, GREEN OR DRY:** Do not use EPTAM 7-E on Adzuki beans, cowpeas (black-eyed peas, black-eyed beans), soybeans, lima beans, Mung beans, Garbanzo beans or other flatpodded beans except Romano. Under abnormal weather conditions, stunting may occur on Gratiot, Michilite, Sanilac, Seafarer and Seaway varieties. Do not exceed 7 pints EPTAM 7-E per acre per crop.

#### AT PLANTING

**Preplant (Flat-Planted):** Use 3-1/2 pints EPTAM 7-E per acre incorporated just before planting on dry, snap and pole beans. Rotary hoe lightly during or shortly after emergence of the beans to break any crust which occurs.

#### OR

**Subsurface Application:** Apply 2-1/4 pints EPTAM 7-E per acre preplant or at planting. See **DIRECTIONS FOR USE**.

# OR

#### **Bed Treatments:**

**Method A** - Apply 3-1/2 pints EPTAM 7-E per acre broadcast and disc in 6 inches deep prior to forming beds and planting.

**Method B** - Apply 1-3/4 pints EPTAM 7-E per acre broadcast (do not disc in) immediately ahead of bedding discs. Plant 7 days after treatment.

**Method C** - Apply as a band treatment (do not disc in) immediately ahead of bedding discs, or as a band treatment to partially formed beds or bed tops immediately in front of the rebedding operation. Use a band rate equivalent to 2-1/4 pints per acre broadcast. Care should be taken not to fold in treatment.

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**Example:** To apply EPTAM 7-E as an 18 inch band on 36-inch rows, use 1-1/4 pints per crop acre. Plant 7 days after application.

**NOTE:** With Methods B and C, if bed shapers (levelers) are used, the bedding up and shaping should be done so that 3 to 4 inches of soil remain over the EPTAM 7-E.

#### OR

#### Lay-by

**Directed Application:** At the time of last cultivation, apply and incorporate 3-1/2 pints EPTAM 7-E per acre. Apply as a directed spray to the soil at the base of the plants before bean pods start to form. Do not feed or pasture vines to livestock until 45 days after application.

#### OR

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**Irrigation Application (Dry Beans Only):** Meter 3 ½ to 4 ½ pints of Eptam 7-E per acre into the irrigation water after clean cultivation. Apply before bean pods start to form. Do not feed or pasture vines to livestock until 45 days after application.

# TANK MIXTURES:

EPTAM 7-E TANK MIXTURES FOR BEANS IN SOUTHEASTERN REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.		
PRODUCTS	COMMENTS	
EPTAM 7-E/Treflan E.C. EPTAM 7-E/Lasso 4-E EPTAM 7-E/Prowl 4-E EPTAM 7-E/Sonalan 4-E.C.	Green <u>and</u> dry Beans Dry beans only Dry beans only Dry beans only	

CITRUS NURSERY STOCK AND YOUNG FIELD PLANTINGS (NON-BEARING ORANGE AND GRAPEFRUIT GROVES): After lining out, apply 3-1/2 to 7 pints EPTAM 7-E per acre as a directed spray to the soil. Incorporate with cultivation equipment, i.e., tree hoes and rotary hoes.

# **COTTON: Non-irrigated Areas Only**

**Application After Stand is Established:** Apply 2-1/4 pints EPTAM 7-E per broadcast acre. Use specially designed injector units or sweeps for application. If incorporated application is to be made, use power driven rotary tillers set to a depth of 2 to 3 inches. Apply after cotton has 2 to 4 leaves. Do not apply after first bolls open. DO NOT APPLY CLOSER THAN 4 INCHES EITHER SIDE OF THE COTTON DRILL.

NOTE: Tandem discs may be used for incorporation in the skips of skip row cotton.

Cotton is susceptible to injury from EPTAM 7-E. Follow directions for use carefully to avoid crop injury.

**PINE SEEDLING NURSERIES (LOBLOLLY, SLASH, LONGLEAF, SHORTLEAF):** Apply and incorporate 7 pints EPTAM 7-E per acre 14 days prior to seeding.

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# POTATOES, IRISH: Do not exceed 3-1/2 pints EPTAM 7-E per acre per crop.

**CAUTION:** In Florida, on winter and early spring potatoes, apply only after potatoes have emerged and true leaves have formed.

# **BEFORE OR AT PLANTING**

**Preplant:** Apply and incorporate 3-1/2 pints EPTAM 7-E per broadcast acre just before planting. For incorporated applications to beds, apply as a band application and incorporate with ground or power driven tillers.

**Example:** In 18-inch bands on 36-inch rows, use 1-3/4 pints per crop acre. See **DIRECTIONS** FOR USE.

#### OR

**Before Planting and Before Bed Formation: Band application:** Apply as a band, equivalent to 3-1/2 pints per acre broadcast basis. Cover with 3 to 4 inches of soil with bedding discs, middle busters or other suitable bed making equipment. Care should be taken not to fold in the band treatment.

## OR

After Planting But Before Bed Formation: Apply 1-3/4 pints EPTAM 7-E per broadcast acre over planted crop and bed up immediately with bedding discs set to cover 3 to 4 inches of soil.

#### OR

After Planting and After Bed Formation: Apply EPTAM 7-E as a band at a rate equivalent to 3-1/2 pints per acre, broadcast basis. Rebed immediately after application with bedding discs set to cover with 3 to 4 inches of soil. Care should be taken not to fold in the band treatment.

#### OR

After Planting and After Bed Formation: Apply 1-3/4 pints EPTAM 7-E per broadcast acre. Rebed immediately after application with bedding discs set to cover with 3 to 4 inches of soil.

# OR

#### DRAG-OFF (Come up, Weeding Time)

Apply EPTAM 7-E as a band treatment after drag-off, at a rate equivalent to 3-1/2 pints per acre (broadcast basis) and cover with bedding discs set to cover with 3 to 4 inches of soil. Care should be taken not to fold in the band treatment.

# OR

#### **POSTEMERGENCE - Lay-by**

**Incorporation:** Apply and incorporate EPTAM 7-E at a rate equivalent to 3-1/2 pints per acre (broadcast basis) after potato plants have emerged from the soil. Apply as a directed spray to the soil in bands on both sides of the row.

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Immediately cover the EPTAM with 3 to 4 inches of soil by rebedding with bedding discs. Care should be taken not to fold in the band treatment.

**Example:** Apply 2-1/4 pints EPTAM 7-E per crop acre as a directed spray to the soil in 12-inch bands on both sides of 36-inch rows. Do not apply within 45 days of harvest.

#### OR

**Irrigation:** Meter 3-1/2 pints EPTAM 7-E per acre into the irrigation water after clean cultivation. Do not apply within 45 days of harvest.

# TANK MIXTURES:

EPTAM 7-E TANK MIXTURE FOR POTATOES IN SOUTHEASTERN REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.

PRODUCTS EPTAM 7-E/Matrix

# SWEET POTATOES

**Preplant:** Apply and incorporate 2¼ pints EPTAM 7-E per acre on coarse textured soils or 3½ pints per acre on medium and fine textured soils just before planting. Incorporate to maximum depth of 3 inches.

OR

**Preplant -Bed-Over:** Apply 1¼ pints EPTAM 7-E per acre on coarse textured soils or 2¼ pints per acre on medium and fine textured soils just before planting. Treat a band width equal to ¼ of the total distance between rows.

Soil from areas adjacent to the band that is not treated is then placed on top of the treated band with bed shaping equipment forming the bed. Band depth in finished and planted bed should be 2 to 4 inches below the bed surface. Bed-over immediately after application.

# OR

**Preplant-Bed-Up:** Apply 1¾ pints EPTAM 7-E per acre on coarse textured soils or 2¼ pints per acre on medium and fine textured soils just before planting. After preshaped beds have been dragged down, EPTAM 7-E is applied broadcast. Soil is then shaped into beds with bed shaping equipment so that the undisturbed EPTAM 7-E layer in the finished bed is 2 to 4 inches below the bed surface. Bed-up immediately after application.

# OR

**Postplant:** Apply 8½ pints EPTAM 7-E per acre immediately after planting or within 2 days after planting slips or vine cuttings. Apply to a dry soil surface and do not mix into the soil. If sweet potatoes are irrigated, EPTAM 7-E should be applied prior to irrigation. Apply as a solid overall spray.

# SOUTHWESTERN REGION

These instructions are given as the broadcast (overall) rate of EPTAM 7-E per acre. For band treatment, use proportionately less material per acre depending on the width of band to be treated and the crop row spacing. Do not use band application on rocky ground because thorough incorporation is not possible.

ALFALFA\*, BIRDSFOOT TREFOIL, CLOVERS, LESPEDEZA: Do not use EPTAM 7-E if a grass or grain nurse crop is to be planted with the legume. Do not use on white dutch clover. Apply and incorporate 3-1/2 pints EPTAM 7-E per acre just before planting. Temporary crop stunting and sealing of the first leaves will occur if conditions for germination and growth are not optimum (e.g. lack of moisture), and will be relieved by irrigation or adequate rainfall.

\* Alfalfa is sensitive to soil residues of Atrazine. Do not use EPTAM 7-E on alfalfa if Atrazine was applied within the previous 12 months.

#### AND/OR

ALFALFA (ESTABLISHED STANDS): Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the irrigation water applied to established stands prior to weed emergence. Use the lower rate on very coarse textured soils. Do not apply within 14 days of harvesting or grazing alfalfa.

LADINO CLOVER (ESTABLISHED STANDS): Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the irrigation water applied to established stands prior to weed emergence. Use the lower rate on very coarse textured soils. Do not apply within 45 days of harvesting or grazing.

**BEANS, GREEN OR DRY:** Do not use EPTAM 7-E on Adzuki beans, cowpeas (black-eyed peas, black-eyed beans), soybeans, lima beans, Mung beans, Garbanzo beans or other flatpodded beans except Romano. Under abnormal weather conditions, stunting may occur on Gratiot, Michilite, Sanilac, Seafarer, and Seaway varieties. Do not exceed 7 pints EPTAM 7-E per acre per crop.

## BEFORE OR AT PLANTING

**Preplant (Flat-Planted):** Apply and incorporate 3-1/2 pints EPTAM 7-E per acre just before planting. Rotary hoe lightly during or shortly after emergence of the beans to break any crust which occurs.

# OR

**Subsurface Application:** Apply 3-1/2 pints EPTAM 7-E per acre preplant, or at planting. See **DIRECTIONS FOR USE**.

# OR

Lay-by

**Directed Application:** At the time of the last cultivation, apply and incorporate 3-1/2 pints of EPTAM 7-E per acre. Apply as a directed spray to the soil at the base of the plants before bean pods start to form. Do not feed or pasture vines to livestock until 45 days after application.

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OR

**Irrigation Application (Dry Beans Only):** Meter 3 ½ to 4 ½ pints of Eptam 7-E per acre into the irrigation water after clean cultivation. Apply before bean pods start to form. Do not feed or pasture vines to livestock until 45 days after application.

# TANK MIXTURES:

EPTAM 7-E TANK MIXTURES FOR BEANS IN SOUTHWESTERN REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.		
PRODUCTS	COMMENTS	
EPTAM 7-E/Treflan E.C. EPTAM 7-E/Lasso 4-E EPTAM 7-E/Prowl 4-E EPTAM 7-E/Sonalan E.C.	Green <u>and</u> Dry beans Dry beans only Dry beans only Dry beans only	

CITRUS NURSERY STOCK AND YOUNG FIELD PLANTINGS (NON-BEARING ORANGE AND GRAPEFRUIT GROVES): After lining out, apply 3-1/2 to 7 pints EPTAM 7-E per acre as a directed spray to the soil. Incorporate with cultivation equipment, i.e., tree hoes and rotary hoes.

#### **COTTON: Non-irrigated Areas Only**

Application After Stand is Established: Apply 2-1/4 pints EPTAM 7-E per broadcast acre. Use specially designed injector units or sweeps for application. If incorporated application is to be made, use power driven rotary tillers set to a depth of 2 to 3 inches. Apply after cotton has 2 to 4 leaves. Do not apply after first bolls open. DO NOT APPLY CLOSER THAN 4 INCHES EITHER SIDE OF THE COTTON DRILL.

NOTE: Tandem discs may be used for incorporation in the skips of skip row cotton.

Cotton is susceptible to injury from EPTAM 7-E. Follow directions for use carefully to avoid crop injury.

**PINE SEEDLING NURSERIES (LOBLOLLY, SLASH, LONGLEAF, SHORTLEAF):** Apply and incorporate 7 pints EPTAM 7-E per acre 14 days prior to seeding.

POTATOES, IRISH: Do not exceed 7 pints EPTAM 7-E per acre per crop.

**PREPLANT:** Apply and incorporate 3-1/2 to 7 pints EPTAM 7-E per acre just before planting.

OR

# DRAG-OFF (Come up, Weeding Time)

**Incorporation:** Apply and incorporate 3-1/2 to 7 pints EPTAM 7-E per acre. For nutsedge control, use the higher rate. The field first must be "dragged-off", followed by EPTAM 7-E application and incorporation. Use spiked-tooth harrows or cultivation equipment for incorporation.

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# AND/OR

Lay-by

**Incorporation:** Apply and incorporate 3-1/2 to 7 pints EPTAM 7-E per acre after potato plants have emerged from the soil. Do not apply within 45 days of harvest.

#### OR

**Irrigation:** Meter up to 3-1/2 pints EPTAM 7-E per acre into the irrigation water after clean cultivation. Do not apply within 45 days of harvest.

#### TANK MIXTURES:

EPTAM 7-E TANK MIXTURE FOR POTATOES IN SOUTHWESTERN REGION.

Refer to Tank Mixture Section for Use Directions.

Products EPTAM 7-E/Matrix

# SUGAR BEETS - POSTTHINNING:

**Irrigation Water:** Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the first irrigation applied after the last cultivation for the season.

OR

**Incorporation:** Apply and incorporate 2-1/4 pints EPTAM 7-E per acre after thinning and clean cultivation and incorporate to a depth of 2 to 3 inches.

#### SWEET POTATOES

**Preplant:** Apply and incorporate 2½ pints EPTAM 7-E per acre on coarse textured soils or 3½ pints per acre on medium and fine textured soils just before planting. Incorporate to maximum depth of 3 inches.

#### OR

**Preplant -Bed-Over:** Apply 1¾ pints EPTAM 7-E per acre on coarse textured soils or 2¼ pints per acre on medium and fine textured soils just before planting. Treat a band width equal to 1⁄3 of the total distance between rows.

Soil from areas adjacent to the band that is not treated is then placed on top of the treated band with bed shaping equipment forming the bed. Band depth in finished and planted bed should be 2 to 4 inches below the bed surface. Bed-over immediately after application.

# OR

**Preplant-Bed-Up:** Apply 1¼ pints EPTAM 7-E per acre on coarse textured soils or 2¼ pints per acre on medium and fine textured soils just before planting. After preshaped beds have been dragged down, EPTAM 7-E is applied broadcast. Soil is then shaped into beds with bed shaping equipment so that the undisturbed EPTAM 7-E layer in the finished bed is 2 to 4 inches below the bed surface. Bed-up immediately after application.

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OR

**Postplant:** Apply 8½ pints EPTAM 7-E per acre immediately after planting or within 2 days after planting slips or vine cuttings. Apply to a dry soil surface and do not mix into the soil. If sweet potatoes are irrigated, EPTAM 7-E should be applied prior to irrigation. Apply as a solid overall spray.

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# PACIFIC NORTHWEST REGION

#### **DIRECTIONS FOR USE**

#### INCORPORATION DIRECTIONS:

EPTAM 7-E must be incorporated into the soil to prevent loss of the herbicide. Whenever possible, application and incorporation should be done in the same operation.

#### Soil Mixing (Incorporation) Directions:

For semiarid areas of Eastern Washington, Eastern Oregon and Idaho only: When application and incorporation are done in separate operations, EPTAM 7-E must be incorporated the same day as application. Application must be made on a dry soil surface (at least ½ inch deep) free from dew and incidental moisture.

**Delay incorporation of dry bulk fertilizers for semiarid areas of Eastern Washington, Eastern Oregon and Idaho only:** The application and incorporation of dry bulk fertilizer impregnated with EPTAM 7-E must be carried out on the same day. Application must be made on a dry soil surface (at least ½ inch deep) free from dew and incidental moisture.

Sprinkler incorporation of EPTAM 7-E in the semiarid areas of Eastern Washington, Eastern Oregon and Idaho only: Surface apply EPTAM 7-E after planting. The soil surface should be dry (at least ½ inch deep) and free from dew and incidental moisture. Incorporate using ½ to 3/4 inch of water within 36 hours following application. The application and incorporation must be done within five days after the last tillage operation, since poor results will occur if weeds have germinated.

#### **CROP INSTRUCTIONS**

These instructions are given as the broadcast (overall) rate of EPTAM 7-E per acre. For band treatment, use proportionately less material per acre depending on the width of band to be treated and the crop row spacing. Do not use band application on rocky ground because thorough incorporation is not possible.

ALFALFA\*, BIRDSFOOT TREFOIL, CLOVERS, LESPEDEZA: Do not use EPTAM 7-E if grass or grain nurse crop is to be planted with the legume. Do not use on white dutch clover. Apply and incorporate 2-1/4 to 4-1/2 pints EPTAM 7-E per acre just before planting. (Use lower rate on very coarse textured soils.) Temporary crop stunting and sealing of the first leaves will occur if conditions for germination and growth are not optimum (e.g. lack of moisture), and will be relieved by irrigation or adequate rainfall.

# OR

ALFALFA\*: Meter 2¼ to 4½ pints EPTAM 7-E per acre into the irrigation water that is applied immediately after planting or during stand establishment. Applications made late summer or early fall, use 2¼ - 4½ pints EPTAM 7-E. Applications made in the spring or early summer use 2¼ - 3½ pints EPTAM 7-E. Use the lower rate on very coarse textured soils. Temporary crop stunting and sealing of the first leaves will occur if conditions for germination and growth are not optimum. Do not apply within 14 days of harvesting or grazing alfalfa.

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\* Alfalfa is sensitive to soil residues of Atrazine. Do not use EPTAM 7-E on alfalfa if Atrazine was applied within the previous 12 months.

#### AND/OR

ALFALFA (ESTABLISHED STANDS): Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the irrigation water applied to established stands prior to weed emergence. Use the lower rate on very coarse textured soils. Do not apply within 14 days of harvesting or grazing alfalfa.

**LADINO CLOVER (ESTABLISHED STANDS):** Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the irrigation water applied to established stands prior to weed emergence. Use the lower rate on very coarse textured soils. Do not apply within 45 days of harvesting or grazing.

**BEANS, GREEN OR DRY:** Do not use EPTAM 7-E on Adzuki beans, cowpeas (black-eyed peas, black-eyed beans), soybeans, lima beans, Mung beans, Garbanzo beans or other flatpodded beans except Romano. Under abnormal weather conditions, stunting may occur on Gratiot, Michilite, Sanilac, Seafarer, and Seaway varieties. Do not exceed 9 pints EPTAM 7-E per acre per crop.

## PREPLANT OR AT PLANTING

**Incorporation:** Apply and incorporate 3-1/2 to 4-1/2 pints EPTAM 7-E per acre just before planting. Rotary hoe lightly during or shortly after emergence of the beans to break any crust which occurs.

#### OR

**Subsurface Application:** Apply 3-1/2 pints EPTAM 7-E per acre preplant, just before planting or at planting. See **DIRECTIONS FOR USE**.

#### OR

**Irrigation Application:** Meter 3-1/2 to 4-1/2 pints EPTAM 7-E per acre into the irrigation water before or immediately after planting. Rotary hoe lightly during or shortly after emergence of the beans to break any crust which occurs.

#### AND/OR

#### Lay-by

**Directed Application:** At time of last cultivation for the season, apply and incorporate 3-1/2 to 4-1/2 pints of EPTAM 7-E per acre for grass and broadleaf control. Apply as a directed spray to the soil at the base of the plants before bean pods start to form. Do not feed or pasture vines to livestock until 45 days after application.

# OR

**Subsurface Application:** Prior to application, a clean cultivation must be made for all existing weed growth to be destroyed. Apply 3-1/2 pints EPTAM 7-E per broadcast acre or in a band treatment (using 2 shanks per row 5-1/2 inches apart, centered on the drill row with rows 38 inches apart) use 1-3/4 pints per acre. See **DIRECTIONS FOR USE**.

OR

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**Irrigation Application (Dry Beans Only):** Meter 3 ½ to 4 ½ pints of Eptam 7-E per acre into the irrigation water after clean cultivation. Apply before bean pods start to form. Do not feed or pasture vines to livestock until 45 days after application.

# TANK MIXTURES:

EPTAM 7-E TANK MIXTURES FOR BEANS IN PACIFIC NORTHWEST REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.		
PRODUCTS COMMENTS		
EPTAM 7-E/Treflan E.C.Green and Dry beansEPTAM 7-E/Dual 8-EDry beans onlyEPTAM 7-E/Lasso 4-EDry beans onlyEPTAM 7-E/Prowl 4-EDry beans onlyEPTAM 7-E/Sonalan E.C.Dry beans only		

POTATOES, IRISH: Do not exceed 14 pints EPTAM 7-E per acre per crop.

The use of a Dammer/Diker following EPTAM 7-E application will cause untreated soil to be brought to the surface and may reduce weed control.

**PREPLANT:** Apply and incorporate just before planting 3-1/2 to 7 pints EPTAM 7-E per acre; use 4-1/2 pints per acre for quackgrass control and 7 pints per acre for hairy nightshade control.

**DRAG-OFF (COME UP, WEEDING TIME) INCORPORATION:** Apply and incorporate 3½ to 7 pints EPTAM 7-E per acre at drag-off. Use the higher rate for nutsedge control. Use spike-tooth harrows or cultivation equipment for incorporation.

**LAY-BY:** Apply and incorporate 3-1/2 to 7 pints EPTAM 7-E per acre after potato plants have emerged from the soil. Apply as a directed spray to the soil. Do not apply within 45 days of harvest.

**IRRIGATION:** Meter 3-1/2 to 7 pints EPTAM 7-E per acre into the irrigation water after clean cultivation. Do not apply within 45 days of harvest.

# TANK MIXTURES:

EPTAM 7-E TANK MIXTURES FOR POTATOES IN PACIFIC NORTHWEST REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.

PRODUCTS EPTAM 7-E/Metribuzin EPTAM 7-E/Matrix

SAFFLOWER: Apply and incorporate 3-1/2 pints EPTAM 7-E per acre per crop.

**SUGAR BEETS:** Postemergence (After The First True Leaves Have Formed): Do not exceed 3-1/2 pints EPTAM 7-E per acre per crop except for irrigation applications where 2 applications of 3-1/2 pints may be made.

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**Incorporation:** Apply 3-1/2 pints EPTAM 7-E per acre after thinning and clean cultivation and incorporate to a depth of 2 to 3 inches.

OR

**Irrigation Water:** Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the irrigation water after clean cultivation. Do not exceed 7 total pints EPTAM 7-E per acre per crop. Do not apply within 49 days of harvest.

#### OR

**Subsurface Injection:** Apply 3-1/2 pints EPTAM 7-E per broadcast acre, or in band treatment (using 2 shanks per row 5-1/2 inches apart, centered on the drill row with rows 22 inches apart) use 1-3/4 pints EPTAM 7-E per acre. Prior to application, a clean cultivation must be made for all existing weed growth to be destroyed.

**WALNUTS:** After clean cultivation or prior to weed emergence on well established trees, meter 3-1/2 pints EPTAM 7-E per acre into the irrigation water during the entire irrigation period.

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# WESTERN REGION

These instructions are given as the broadcast (overall) rate of EPTAM 7-E per acre. For band treatment, use proportionately less material per acre depending on the width of band to be treated and the crop row spacing. Do not use band application on rocky ground because thorough incorporation is not possible.

In California, refer to the supplemental label for additional mitigation measures for Handlers and Applicators.

ALFALFA\*, BIRDSFOOT TREFOIL, CLOVERS, LESPEDEZA: Do not use EPTAM 7-E if a grass or grain nurse crop is to be planted with the legume. Do not use on white dutch clover. Apply and incorporate 2-1/4 to 4-1/2 pints EPTAM 7-E per acre just before planting. (Use the lower rate on very coarse textured soils.) Temporary crop stunting and sealing of the first leaves will occur if conditions for germination and growth are not optimum (e.g. lack of moisture), and will be relieved by irrigation or adequate rainfall.

#### OR

ALFALFA\*: Meter 2¼ to 4½ pints EPTAM 7-E per acre into the irrigation water that is applied immediately after planting or during stand establishment. Use the lower rate on very coarse textured soils. Temporary crop stunting and sealing of the first leaves will occur if conditions for germination and growth are not optimum. Do not apply within 14 days of harvesting or grazing alfalfa.

Do not use EPTAM 7-E preemergence on rill irrigated (corrugated) alfalfa.

\* Alfalfa is sensitive to soil residues of Atrazine. Do not use EPTAM 7-E on alfalfa if Atrazine was applied within the previous 12 months.

# AND/OR

**ALFALFA (ESTABLISHED STANDS):** Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the irrigation water applied to established stands prior to weed emergence. Use the lower rate on very coarse textured soils. Limit use to one application EPTAM 7-E per cutting. Up to 14 pints EPTAM 7-E per acre per year may be used if applied into the irrigation water. Do not apply within 14 days of harvesting or grazing alfalfa.

**LADINO CLOVER (ESTABLISHED STANDS):** Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the irrigation water applied to established stands prior to weed emergence. Use the lower rate on very coarse textured soils. Do not apply within 45 days of harvesting or grazing.

**ALMONDS:** After making the last cultivation for the season, meter 2-1/2 to 3-1/2 pints EPTAM 7-E per acre into the irrigation water. Do not exceed 7 pints per acre per season. Do not apply within 16 days of harvest.

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**BEANS, GREEN OR DRY:** Do not use EPTAM 7-E on Adzuki beans, cowpeas (black-eyed peas, black-eyed beans), soybeans, lima beans, Mung beans, Garbanzo beans or other flatpodded beans except Romano. Under abnormal weather conditions, stunting may occur on Gratiot, Michilite, Sanilac, Seafarer and Seaway varieties. Do not exceed 8 pints EPTAM 7-E per acre per crop.

# PREPLANT/AT PLANTING

**Incorporation:** Apply and incorporate 3-1/2 pints EPTAM 7-E per acre just before planting. Rotary hoe lightly during or shortly after emergence of the beans to break any crust which occurs.

# OR

**Subsurface Application:** Apply 3-1/2 pints EPTAM 7-E per acre preplant, just before planting or at planting. See **DIRECTIONS FOR USE**.

# AND/OR

# Lay-by

**Directed Application:** At time of last cultivation for the season, apply and incorporate 3-1/2 to 4-1/2 pints EPTAM 7-E per acre for grass and broadleaf control. Apply as a directed spray to the soil at the base of the plants before bean pods start to form. Do not feed or pasture vines to livestock until 45 days after application.

# OR

**Subsurface Application:** Prior to application, a clean cultivation must be made for all existing weed growth to be destroyed. Apply 3-1/2 pints EPTAM 7-E per broadcast acre or in a band treatment (using 2 shanks per row 5-1/2 inches apart, centered on the drill row with rows 38 inches apart) use 1-3/4 pints per acre. See **DIRECTIONS FOR USE**.

# OR

**Irrigation Application (Dry Beans Only):** Meter 3 ½ to 4 ½ pints of Eptam 7-E per acre into the irrigation water after clean cultivation. Apply before bean pods start to form. Do not feed or pasture vines to livestock until 45 days after application.

# TANK MIXTURES:

EPTAM 7-E TANK MIXTURES FOR BEANS IN WESTERN REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.		
PRODUCTS COMMENTS		
EPTAM 7-E/Treflan E.C. EPTAM 7-E/Lasso 4-E EPTAM 7-E/Prowl 4-E EPTAM 7-E/Sonalan E.C.	Green <u>and</u> Dry Beans Dry beans only Dry beans only Dry beans only	

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**CITRUS NURSERY STOCK AND YOUNG FIELD PLANTINGS (NONBEARING ORANGE, GRAPEFRUIT, AND LEMON GROVES):** After lining out, apply 3-1/2 to 7 pints EPTAM 7-E per acre as directed spray to the soil. Incorporate with cultivation equipment, i.e., tree hoes and rotary hoes.

POTATO, IRISH: Do not exceed 14 pints EPTAM 7-E per acre per crop.

**Preplant:** Apply and incorporate 3½ pints of EPTAM 7-E per acre just before planting. *For northern California counties (Lassen, Modoc, Shasta, Siskiyou) only:* Apply and incorporate just before planting 3½ to 7 pints of EPTAM 7-E per acre; use 4½ pints per acre for quackgrass control and 7 pints per acre for hairy nightshade control.

**Drag-off:** Apply and incorporate 3-1/2 pints EPTAM 7-E per acre. The field first must be dragged-off, then EPTAM 7-E applied and incorporated. Use spike-tooth harrows or cultivation equipment for incorporation.

#### AND/OR

#### Lay-by

**Incorporation:** Apply and incorporate 3-1/2 to 4-1/2 pints EPTAM 7-E per acre after potato plants have emerged from the soil. (Use lower rate on coarse textured soils). Apply as a direct spray to the soil. Do not apply within 30 days of harvest.

OR

**Irrigation:** Meter 3-1/2 pints EPTAM 7-E per acre into the irrigation water after clean cultivation. Do not apply within 30 days of harvest.

EPTAM 7-E TANK MIXTURES FOR POTATOES IN WESTERN REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.

Products EPTAM 7-E/Matrix

SAFFLOWER: Apply and incorporate 3-1/2 pints EPTAM 7-E per acre just before planting.

# SUGAR BEETS - Postemergence (After First True Leaves Have Formed).

**Incorporation:** Apply 3-1/2 pints EPTAM 7-E per acre after thinning and clean cultivation and incorporate to a depth of 2 to 3 inches.

#### OR

**Irrigation Water:** Meter 2-1/4 to 3-1/2 pints EPTAM 7-E per acre into the first irrigation applied after the last cultivation for the season. Two applications of 2-1/4 pints each should be made when beets are to be carried in the ground longer than the normal growing season.

OR

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**Subsurface Injection:** Apply 3-1/2 pints EPTAM 7-E per broadcast acre, or in band treatment (using 2 shanks per row 5-1/2 inches apart, centered on the drill row) use 1-3/4 pints EPTAM 7-E per acre. Prior to application, a clean cultivation must be made for all existing weed growth to be destroyed. See **DIRECTIONS FOR USE**.

#### TANK MIXTURES:

EPTAM 7-E TANK MIXTURES FOR SUGAR BEETS IN WESTERN REGION. REFER TO TANK MIXTURE SECTION FOR USE DIRECTIONS.		
PRODUCTS	COMMENTS	
EPTAM 7-E/Treflan E.C.	California only.	

## TOMATOES: Lay-By Application

(Northern California Counties only, i.e., Butte, Colusa, Contra Costa, Fresno, Glenn, Madera, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter, Yolo and Yuba). For use on tomatoes at least 3 to 4 inches tall; on clay and clay loam soils only. DO NOT USE ON SANDY SOILS.

Apply EPTAM 7-E as a spray to the soil surface at a rate of 3-1/2 pints per acre. Incorporate immediately. For band applications, reduce rates proportionately. **DO NOT APPLY WITHIN 2 INCHES OF THE CROP ROW**. Do not use where grain will be planted within 90 days. Do not irrigate for at least 5 days after application. Do not apply within 21 days of harvest.

**WALNUTS:** After clean cultivation or prior to weed emergence on well established trees, meter 3-1/2 pints EPTAM 7-E per acre into the irrigation water during the entire irrigation period.

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## TANKMIX COMBINATIONS

For broader spectrum weed control and increased control of certain broadleaf weeds EPTAM 7-E may be tank mixed with the following herbicides. Consult product labels and crop use directions for exact rates and application directions.

## EPTAM 7-E/TREFLAN E.C. HERBICIDE TANKMIX

For Weed Control in Beans (Green and Dry)-All Regions, Sugar Beets-California Only, and Sunflowers-Northern Region (MN, SD, ND only)

A tankmix combination of EPTAM 7-E plus Treflan E.C. will give a broader spectrum of weed control than either product used separately.

## **DIRECTIONS FOR USE**

**Caution:** Read both the EPTAM 7-E and Treflan E.C. labels carefully before using. Observe all cautions and limitations on labeling of both products.

**Mixing:** Add the recommended rates of both EPTAM 7-E and Treflan E.C. to the spray tank during filling and mix thoroughly. Apply in 10 to 40 gallons of water per acre.

Additional Weeds Controlled by the Combination of EPTAM 7-E and Treflan E.C.

Annual Grasses Bromegrass Sprangletop Cheat

#### Annual Broadleaves

Pigweeds (Spiny) Lambsquarters Carpetweed Russian Thistle Kochia Knotweed Stinging Nettle Puncturevine

## INSTRUCTIONS

**Beans, Green and Dry:** The combination of EPTAM 7-E and Treflan E.C. should not be used on Adzuki beans, cowpeas (black-eyed peas, black-eyed beans), soybeans, lima beans, Mung beans, Garbanzo beans or other flat-podded beans except Romano.

Make application before planting, using the rates listed in the following table.

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APPLICATION RATES PER BROADCAST ACRE				
		TREFLAN E.C.		
EPTAM 7-E	SOIL TYPE	ORGANIC MATTER CONTENT	RATE	
2-1/2 to 3-1/2 pints*	Coarse (sand) Coarse (sand) Medium (loam) Fine (clay) All soil types	0 to 2% 2 to 5% 0 to 5% 0 to 5% 5.1 to 10%	1 pint 1 to 1-1/2 pints 1-1/2 pints 1-1/2 pints 1-1/2 pints	

\*Use the higher rate for nutsedge control.

## PLANTING INSTRUCTIONS

**Dry Beans** - Plant within 48 hours after incorporation. In the lighter soils under sprinkler irrigation, when it is necessary to irrigate beans after planting and before emergence, sufficient water should be applied to wet the soil well below the depth of planted seed.

Green Beans - Plant soon after incorporation to provide the maximum period of weed control.

**Sugar Beets (California)** - Apply as a broadcast spray over the top when plants are 2 to 6 inches tall, using the following rates.

APPLICATION RATES PER BROADCAST ACRE				
	TREFI	TREFLAN E.C.		
EPTAM 7-E	SOIL TYPE	RATE		
3-1/2 pints	Coarse (sand) Medium (loam) Fine (clay)	1 pint 1-1/4 to 1-1/2 pints 1-1/2 pints		

Exposed beet roots should be covered with soil before application to reduce possibility of girdling. Set incorporation machinery to throw treated soil toward the plants in the row. Care should be taken that incorporation machinery does not damage the sugar beet taproot.

# Sunflowers-(Colorado, Kansas, Minnesota, Nebraska, North Dakota, South Dakota) - Apply and incorporate just before planting, using the rates listed below.

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APPLICATION RATES PER BROADCAST ACRE					
			TREFLAN E.C. RATE		
EPTAM 7-E SOIL TYPE		ORGANIC MATTER CONTENT	MINNESOTA, EASTERN DAKOTAS	COLORADO, KANSAS, NEBRASKA, WESTERN DAKOTAS	
2¼ to 2½ pints	Coarse (sand) Coarse (sand) Medium (loam) Fine (clay) All soil types	0 to 2% 2 to 5% 0 to 5% 0 to 5% 5.1 to 10%	1 pint 1-1/2 to 2 pints 1-1/2 pints 2 pints 2 pints	1 pint 1-1/2 to 2 pints 1-1/4 to 1-1/2 pints 1-1/2 pints 2 pints	

## EPTAM 7-E AND METRIBUZIN HERBICIDE TANKMIX (SPRINKLER APPLICATION ONLY)

## For Control of Weeds in Irish Potatoes - Pacific Northwest and Northern Regions

A tankmix combination of EPTAM 7-E and Metribuzin (Sencor or Lexone) can be applied to Irish potatoes to provide a broader spectrum of weed control than either product used separately.

Before using EPTAM 7-E and Metribuzin (Sencor, Lexone) as a tankmix, read both the EPTAM 7-E and Metribuzin (Sencor, Lexone) labels carefully. Observe all cautions and limitations on labeling of both products.

# Additional Weeds Controlled by The Tank Mixture of EPTAM 7-E and Metribuzin

Annual Grasses Panicum, Fall Panicum, Texas Witchgrass

**Annual Broadleaf Weeds** 

Cocklebur Cutleaf Nightshade Jimsonweed Lambsquarters, Common Hairy Nightshade Pennsylvania Smartweed Prickly Sida Ragweed, Common Sicklepod Wild Mustard

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## DIRECTIONS FOR USE

**Sprinkler Application:** Apply through irrigation sprinkler system after planting as a preemergence application or as an early postemergence application up to 6 inch tall potatoes. Use the appropriate rate of EPTAM 7-E and Metribuzin (Sencor, Lexone) as indicated in the following table.

Premix the desired rate of Metribuzin (Sencor, Lexone) in the holding tank in 4 to 5 parts water to 1 part chemical. Add EPTAM 7-E last. Meter the chemical-water mixture into the sprinkler system at a rate proportionate to the acreage to be covered. For center pivot systems, apply ½ to 3/4 inch of water per acre. For solid set, wheel lines or hand lines, moisten the soil surface lightly first, then apply the herbicide mixture in ½ to 1 inch of water per acre. For best results, the soil should be wetted to a depth of 3-4 inches.

# APPLICATION RATES:

Use the appropriate rates of EPTAM 7-E and Metribuzin (Sencor, Lexone) as indicated in the following table:

APPLICATION RATES PER BROADCAST ACRE				
	Pints EPTAM 7-E	Pounds Active Ingredient of Metribuzin		
COARSE SOILS Sand Sandy loam Loamy sand	3-1/2	0.25		
FINE SOILS Loam Silt loam Sandy clay Clay loam	4-1/2	0.25 - 0.5		

Use EPTAM 7-E plus Metribuzin (Sencor, Lexone) postemergence only on russetted or whiteskinned potato varieties that are not early maturing. In addition to early maturing smoothskinned white or red skinned varieties of potatoes, certain varieties of potatoes are sensitive to pre or postemergence applications of Sencor or Lexone herbicides. Please refer to Sencor and/or Lexone labels for more information/precautions.

# EPTAM 7-E/MATRIX HERBICIDE TANKMIX For Weed Control in Irish Potatoes - All Regions

A tankmix combination of EPTAM 7-E and Matrix herbicide can be applied preemergence or postemergence to Irish Potatoes. The tankmix combination can provide broader spectrum weed control than either product used alone. Before using EPTAM 7-E and Matrix as a tankmix, read both the EPTAM 7-E and Matrix labels carefully. Observe all cautions and limitations noted on the labels of both products.

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## Additional Weeds Controlled by the Tank Mixture of EPTAM 7-E and Matrix

Ladysthumb Kochia Mustard, Wild Smartweed, Pennsylvania Sunflower, Common

Polygonum persicaria Kochia scoparia Sinapis arvensis Polygonum pensylvanicum Helianthus annuus

## DIRECTIONS FOR USE:

**MIXING:** Add the recommended rates of EPTAM 7-E and Matrix to the spray tank while the agitator is running. Add the EPTAM 7-E last. Refer to the Matrix label for surfactant instructions.

**DRAG-OFF (PREEMERGENCE) APPLICATION:** Apply and incorporate the EPTAM 7-E and Matrix tankmix combination at the rates specified below on the table. The field must be dragged off, then the EPTAM 7-E and Matrix tankmix combination applied and incorporated. Refer to the EPTAM 7-E label for specific regional incorporation directions.

APPLICATION RATES PER BROADCAST ACRE				
Regions	EPTAM 7-E	Matrix		
Northern, Pacific Northwest, Southwestern	3½ - 7 pints	1 - 1½ oz		
Southeastern, Western	3½ pints	1 - 1½ oz		

**SPRINKLER APPLICATION:** Apply the EPTAM 7-E and Matrix tankmix combination through sprinkler irrigation after planting as a preemergence application or as an early postemergence application at the rates specified below. Refer to the EPTAM 7-E and Matrix labels for specific sprinkler application directions.

APPLICATION RATES PER BROADCAST ACRE				
Regions	EPTAM 7-E	Matrix		
Northern, Southeastern, Southwestern, Western	3½ pints	1 - 1½ oz		
Pacific Northwest	3½ - 7 pints	1 - 1½ oz		

## EPTAM 7-E/DUAL® 8E HERBICIDE TANKMIX

## For Weed Control in Dry Beans in the Northern and Pacific Northwest Regions

A tankmix combination of EPTAM 7-E plus Dual 8E will give better weed control than either product used separately.

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## **DIRECTIONS FOR USE**

**Mixing:** Add the recommended rates of both EPTAM 7-E and Dual 8E to the spray tank during filling and mix thoroughly. Apply in 10 to 40 gallons of water per acre.

**Soil Incorporation:** Immediately after spraying, the EPTAM 7-E and Dual 8E combination must be incorporated thoroughly into the top 2 to 3 inches of soil.

**Application Rates:** Use the appropriate rates of EPTAM 7-E and Dual 8E as indicated in the following table:

APPLICATION RATES PER BROADCAST ACRE				
	DUAL 8E		L 8E	
SOIL TYPE	EPTAM 7-E	Less than 3% Organic Matter	3% or Greater Organic Matter	
Coarse (sand) Medium (loam) Fine (clay)	3-1/2 to 4-1/2 pints 3-1/2 to 4-1/2 pints 3-1/2 to 4-1/2 pints	1-1/4 pints 1-1/2 pints 2 pints	1-1/2 pints 2 pints 2 to 2-1/2 pints	

**Planting:** Seeding should be done as soon as possible after treatment to obtain a maximum period of weed control.

## EPTAM 7-E/SONALAN® E.C. HERBICIDE TANKMIX

## For Weed Control in Dry Beans - All Regions

A tankmix combination of EPTAM 7-E plus Sonalan E.C. will give a broader spectrum of weed control than either product used separately.

Caution: Do not graze or feed forage from treated fields to livestock.

## DIRECTIONS FOR USE

**Mixing:** Add the recommended rates of both EPTAM 7-E and Sonalan E.C. to the spray tank during filling and mix thoroughly. Apply in 10 to 40 gallons of water per acre.

**Soil Incorporation:** The EPTAM 7-E and Sonalan E.C. combination must be incorporated thoroughly in the top 2 to 3 inches of soil immediately after spraying.

**Application Rates:** Use the appropriate rates of EPTAM 7-E and Sonalan E.C. as indicated in the following table:

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APPLICATION RATES PER BROADCAST ACRE				
	,	AMOUNT OF SONALAN E.C.		
EPTAM 7-E (pints)	Soil Type	General Weed Control (pints)	Nightshade* and Groundcherry* (pints)	
2-1/2 to 4-1/2	Coarse Medium Fine	1-1/4 to 2 1-3/4 to 2-1/2 2-1/4 to 3	3 to 3-1/2 3-1/2 to 4 4 to 4-1/4	

\*Two incorporation passes are required for nightshade or groundcherry control.

The EPTAM 7-E/Sonalan E.C. tankmix more effectively controls the weeds listed for EPTAM 7-E alone plus these additional weeds:

Wild Buckwheat

Groundcherry (Lanceleaf and Wrights)

**Planting:** Seeding should be done as soon as possible after treatment to obtain a maximum period of weed control.

## EPTAM 7-E/LASSO® 4-E HERBICIDE TANKMIX

#### For Weed Control in Dry Beans in the Northern Region

A tankmix combination of EPTAM 7-E plus Lasso 4-E will give a broader spectrum of weed control than either product used separately.

In addition to the weeds listed on the label for EPTAM 7-E alone, the following annual broadleaf weeds can be controlled with an EPTAM 7-E/Lasso 4-E tankmix:

Common Ragweed Ambrosia artemisiifolia Pennsylvania Smartweed Polygonum pensylvanicum

#### DIRECTIONS FOR USE

**Mixing:** Add the recommended rates of both EPTAM 7-E and Lasso 4-E to the spray tank during filling and mix thoroughly. Apply in 10 to 40 gallons of water per acre.

**Soil Incorporation:** Immediately after spraying, the EPTAM 7-E and Lasso 4-E combination must be incorporated thoroughly into the top 2 to 3 inches of soil.

**Application Rates:** Use 2 to 3 pints of EPTAM 7-E plus 4 to 6 pints of Lasso 4-E. Use only the 4 pint rate of Lasso 4-E in Michigan. Use the higher rates of herbicides for heavy weed infestations and hard-to-control weeds.

**Planting:** Seeding should be done as soon as possible after treatment to obtain a maximum period of weed control.

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#### EPTAM 7-E/RO-NEET® 6-E HERBICIDE TANKMIX

For Preplant Use in Sugar Beets - Northern Region (Michigan, Minnesota, Ohio and The Red River Valley Area of North Dakota Only)

## **DIRECTIONS FOR USE**

The EPTAM 7-E and RO-NEET 6-E combination is a selective tank mix which controls weeds by interfering with normal germination and seedling development. This tank mixture can be applied only once per growing season. The combination may be used in the fall or in the spring (except where noted in the following table). The EPTAM 7-E and RO-NEET 6-E combination may cause crop injury on very light sandy soil and when used under adverse environmental conditions that weaken crop seedlings.

A tank mixture of EPTAM 7-E and RO-NEET 6-E will give equal to or greater control of the following listed weeds than either product used separately. This combination does not control established weeds.

Green foxtail Yellow foxtail Wild oats Yellow nutsedge Purple nutsedge Lambsquarters, common\* Pigweed, redroot\* Setaria viridis Setaria glauca Avena fatua Cyperus esculentus Cyperus rotundus Chenopodium album Amaranthus retroflexus

\*Partial control only (suppression)

**Application Directions:** During filling, pour the recommended rates of both EPTAM 7-E and RO-NEET 6-E into a properly calibrated, low-pressure boom sprayer having good agitation, and mix thoroughly. Apply the material uniformly in 10 to 50 gallons of water per acre. Check calibration frequently during application and observe the nozzles to ensure a uniform spray pattern. The soil should be well-worked prior to application and dry enough to permit thorough mixing with incorporation equipment.

**Soil Incorporation:** The EPTAM 7-E and RO-NEET 6-E tank mixture must be immediately incorporated (mixed) into the top 2 to 3 inches of soil after spraying to prevent loss of the herbicides.

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SPRING* PREPLANT INCORPORATED APPLICATION RATES** (Pints/Acre***)				
SOIL TEXTURE	ORGANIC MATTER %	EPTAM 7-E	RO-NEET 6-E	
Coarse	3.0 to 4.5	1.0	3.0	
	>4.5	1.0 to 1.25	3.0	
Medium	3.0 to 4.5	1.0 to 1.25	3.0 to 4.0	
	>4.5	1.0 to 1.75	3.0 to 4.0	
Fine	3.0 to 4.5	1.0 to 1.5	3.0 to 4.0	
	>4.5	1.0 to 2.0	3.0 to 4.0	

\*DO NOT USE THE TANKMIX IN THE SPRING IN MICHIGAN OR OHIO

- \*\*Make only one application per growing season. Do not apply the EPTAM 7-E/RO-NEET 6-E combination in the spring if either this combination or RO-NEET 6-E alone was applied in the fall.
- \*\*\*Do not apply more than 5 pints of RO-NEET 6-E and EPTAM 7-E combined regardless of the ratio.

FALL PREPLANT INCORPORATED APPLICATION RATES* (Pints/Acre**)				
SOIL TEXTURE	ORGANIC MATTER %	EPTAM 7-E	RO-NEET 6-E	
Coarse	3.0 to 4.5	1.0	4.0	
	>4.5	1.0 to 1.25	4.0 to 4.33	
Medium	3.0 to 4.5	1.0 to 1.25	4.0 to 4.5	
	>4.5	1.0 to 1.5	4.0 to 4.5	
Fine	3.0 to 4.5	1.0 to 1.5	3.0 to 4.5	
	>4.5	1.0 to 2.0	4.5	

\* Make only one application per growing season. Do not apply the EPTAM 7-E/RO-NEET 6-E combination in the spring if either this combination or RO-NEET 6-E alone was applied in the fall.

\*\*Do not apply more than 6 pints of RO-NEET 6-E and EPTAM 7-E combined regardless of the ratio.

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## EPTAM 7-E/PROWL® 4-E HERBICIDE TANKMIX

## For Weed Control in Dry Beans - All Regions

A tankmix combination of EPTAM 7-E plus Prowl 4-E will give a broader spectrum of weed control than either product used separately.

In addition to the weeds listed on the label for EPTAM 7-E alone, the following annual broadleaf weeds can be controlled with an EPTAM 7-E/Prowl 4-E tankmix:

Annual Spurge Kochia

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Euphorbia spp. Kochia scoparia

# DIRECTIONS FOR USE

Apply the EPTAM 7-E/Prowl 4-E tankmix as a preplant soil incorporated treatment.

**Mixing:** Add the recommended rates of both EPTAM 7-E and Prowl 4-E to the spray tank during filling and mix thoroughly. Apply in 10 to 40 gallons of water per acre.

**Soil Incorporation:** Immediately after spraying, the EPTAM 7-E and Prowl 4-E combination must be incorporated thoroughly into the top 2 to 3 inches of soil.

For semiarid areas of Eastern Washington, Eastern Oregon and Idaho only: When application and incorporation are done in separate operations, EPTAM 7-E and Prowl 4-E must be incorporated the same day as applied. Application must be made on a dry soil surface (at least  $\frac{1}{2}$  inch deep) free from dew and incidental moisture.

**Application Rates:** Use the appropriate rates of EPTAM 7-E and Prowl 4-E as indicated in the following tables:

APPLICATION RATES PER BROADCAST ACRE* Western, Southwestern and Southeastern Regions				
SOIL TYPE	EPTAM 7-E	PROWL 4-E		
Coarse (sand) Medium (loam) Fine (clay)	2-1/2 to 4-1/2 pints 3 to 4-1/2 pints 3 to 4-1/2 pints	1 to 1-1/2 pints 1-1/2 to 2 pints 1-1/2 to 3 pints		

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APPLICATION RATES PER BROADCAST ACRE* Northern Region				
SOIL TYPE	ORGANIC MATTER	EPTAM 7-E	PROWL 4-E	
Coarse (sand) Medium (loam) Fine (clay)	3% or less more than 3% 3% or less more than 3% 3% or less more than 3%	2-1/2 to 4 pints 2-1/2 to 4 pints 3 to 4-1/2 pints	1 to 1-1/2 pints 1-1/2 pints 1-1/2 to 2 pints 1-1/2 to 2 pints 1-1/2 to 2 pints 2 to 2-1/2 pints	

APPLICATION RATES PER BROADCAST ACRE* Pacific Northwest Region			
SOIL TYPE	ORGANIC MATTER	EPTAM 7-E	PROWL 4-E
Coarse (sand) Medium (loam) Fine (clay)	3% or less more than 3% 3% or less more than 3% 3% or less more than 3%	3-1/2 to 4-1/2 pints 3-1/2 to 4-1/2 pints	1 to 2 pints 2 pints 1-1/2 to 2-1/2 pints 2-1/2 to 3 pints 2 to 3 pints 3 pints

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\* Use the higher recommended rate of EPTAM 7-E where hairy nightshade, black nightshade or nutsedge are present.

# DIRECTIONS FOR USE - ORNAMENTAL SECTION

**Soil Preparation:** The soil to be treated should be loose and free of clods. All weed growth should be removed or thoroughly worked into the soil before application.

**Application:** The recommended rate of EPTAM 7-E should be applied as uniformly as possible. Apply to well-worked soil that is dry enough to permit thorough mixing with incorporation equipment. When treating around established plants, direct spray to soil surface for maximum coverage. Use one of the following appropriate means of application:

**Low Pressure Herbicide Sprayer:** For broadcast application use 10 to 50 gallons of water per acre. For band application (in front of power tiller) use less water depending upon row spacing and width of band desired. Check pressure and nozzles frequently to assure uniform application.

**Hose Proportioner:** Make sure proportioner is working properly. A more uniform application can be made by applying half the required amount of EPTAM 7-E over the area to be treated, then applying the remainder at right angles or crosswise.

Knapsack Sprayer: Apply as suggested for the hose proportioner.

**Soil (mixing) Incorporation:** Immediately after application, thoroughly mix EPTAM 7-E into the soil to a depth of 2 to 3 inches. Mix to a depth of 6 inches for nutsedge, quackgrass, bermudagrass and chrysanthemumweed (mugwort) control. Thorough soil mixing is necessary for good weed control.

Use the following equipment or other equipment which has proven satisfactory under local conditions.

#### **Commercial Nursery:**

Use nursery cultivator or rototillers for preplant broadcast (overall) applications, preplant band applications and postplant applications.

## EPTAM 7-E CAN BE USED ON THESE ORNAMENTALS

#### HERBACEOUS PLANTS

Ageratum	Begonia	Marigold
Alyssum	Chrysanthemum	Nasturtium
Amaranthus	Dahlia	Pansy
Asters	Daylilies	Petunia
Balsam	Dianthus	Zinnia

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#### **GROUND COVERS**

Ajuga	Pachysandra
Gazania	Periwinkle (Vinca minor)
Hypericum	Sedum
Ice Plant	Strawberry (ornamental)
lvy	• • •

# EVERGREEN AND DECIDUOUS TREES AND SHRUBS

Azalea	Leucothoe
Berberis	Lilac
Boxwood	Linden
Camellia	Magnolia
Chamaecyparis	Maple
Citrus (Nonbearing)	Oak
Dogwood	Pieris
Euonymus	Pine
Fir	Podocarpus
Hemlock	Rhododendron
Holly (American and	Spruce
Japanese)	Viburnum
Juniper	Yew (Texas)

**NOTE:** All flowering bulbs, salvia, phlox, snap-dragon and ornamental pepper are susceptible to injury from an application of EPTAM 7-E.

For Annual Weed Control - Use EPTAM 7-E at the rate of 5-3/4 pints in 10 to 50 gallons of water per acre (2 fl. oz. per 1,000 square feet).

For Quackgrass, Nutsedge and Bermudagrass Control in Trees and Shrubs Only -Existing stands of these perennial grasses must be turned under and chopped up thoroughly before treatment. Use EPTAM 7-E at the rate of 7 pints in 10 to 50 gallons of water per acre (2.5 fl. oz. per 1,000 square feet).

For Mugwort (Chrysanthemumweed) Control in the Following Plants: Juniper, Japanese Holly, Ivy, Pachysandra, Petunias\* - Use 17 pints of EPTAM 7-E in 10 to 50 gallons of waterper acre (6 fl. oz. per 1,000 square feet). Mix thoroughly into the top 6 inches of soil. Apply 4 weeks before desired planting date.

\* Not for use in California.

#### WHEN TO USE EPTAM 7-E

Herbaceous Plants and Ground Covers: Apply 2 weeks after transplanting or after growth starts in the spring.

**Trees and Shrubs:** Apply 2 weeks before transplanting balled and canned stock (only) and anytime after transplanting. Around established plants apply after growth starts in the spring.

## APPENDIX I - EPTAM 7-E WITH FLUID FERTILIZERS

The following procedure is suggested for determining whether EPTAM 7-E may be combined with a specific fluid fertilizer for spray tank application.

#### Materials Required:

- 1. EPTAM 7-E.
- 2. Fluid fertilizer to be used.
- 3. Adjuvant for fertilizer tankmix: Compex<sup>™</sup>, Sponto<sup>™</sup> 168-D, Unite<sup>™</sup>, or equivalent. The adjuvant which provides the best emulsification depends on the specific fertilizer under consideration.
- 4. Two one-quart, wide-mouth glass jars with lid or stopper.
- 5. Measuring spoons (a 25 mL pipette or graduated cylinder provides more accurate measurement).
- 6. Measuring cup, 8 oz. (237 mL).

#### Procedure:

- 1. Pour a pint (about 473 mL) of the fluid fertilizer into each of the quart jars.
- 2. Add adjuvant to one of the jars and mix (see next rate table).
- 3. Add the EPTAM 7-E to both jars (see next rate table).
- 4. Close both jars with lid or stopper and mix the contents by turning the jars upside down ten times.
- 5. Inspect the surface and body of the mixtures -
  - (A) Immediately after completing the jar inversions,
  - (B) After allowing the jars to stand quietly for 30 minutes,
  - (C) And then again after turning the jars upside down ten times.

If a uniform mix cannot be made, the mixture should not be used. If either mixture remains uniform for 30 minutes, the combination may be used. Should either mixture separate after 30 minutes but readily remix uniformly with ten jar inversions, the mixture can be used if adequate agitation is maintained in the tank. If the mixture with adjuvant is satisfactory but the one without adjuvant is not, be sure to use the adjuvant in the spray tank. Add the adjuvant first at a rate of 3 pints per 100 gallons of fluid fertilizer; foaming can be minimized by using moderate agitation.

If nondispersible oil, sludge or clumps of solids form in the mixtures, the combination should not be used.

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**NOTE 1:** For some combinations, premixing wettable powders in a little water in a pail before adding them to the spray tank will improve the compatibility of the final mixtures with EPTAM 7-E. This technique can be tested in the small-scale jar test by premixing the wettable powder in one-eighth (1/8) cup of water prior to addition to the pint of fluid fertilizer.

RATE TABLE FOR EPTAM 7-E AND ADJUVANT** WITH THE FLUID FERTILIZER					
Gallons of fluid fertilizer to be applied per acre	mL or Tsp. of EPTAM 7-E* to be added to 1 pint of fertilizer				
	7-E				
	mL.	tsp.			
10	7	1-1/3			
15	4	3/4			
20	3	2/3			
25	3	2/3			
30	2	1/2			
40	2	1/2			

- \* Based on field rate of 1 pound active ingredient per acre in the fertilizer volumes indicated. Increase volume proportionately to correspond with intended field rate in terms of pounds active ingredient per acre (e.g., for field rate of 4 pounds actual EPTAM 7-E in 40 gallons fertilizer per acre, add 8 mL or 2 tsp. EPTAM 7-E to each jar for compatibility testing purposes).
- \*\* Two (2) milliliters or one-half (1/2) teaspoon of adjuvant to be added to 1 pint of fluid fertilizer in order to equal the rate of 3 pints of adjuvant per 100 gallons of fluid fertilizer.

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## APPENDIX II - EPTAM 7-E IMPREGNATION ON DRY BULK FERTILIZERS

**CAUTION:** EPTAM 7-E alone or in combination with other herbicides must not be impregnated on ammonium nitrate, sodium nitrate or potassium nitrate. Such mixtures may cause explosion and fire.

All individual state regulations relating to bulk dry fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the fertilizer and EPTAM 7-E mixture.

EPTAM 7-E may be impregnated on many dry bulk fertilizers and applied and incorporated in the soil before planting for the control of grass and broadleaf weeds.

All EPTAM 7-E supplementary literature instructions and label instructions regarding rates per acre, soil incorporation, application, cautions, general use precautions and other directions must be followed.

Test results have shown that EPTAM 7-E on bulk dry fertilizers gives weed control equal to EPTAM 7-E applied as a spray in water or liquid fertilizer. However, uniform impregnation of EPTAM 7-E on dry fertilizer particles and uniform application in the field are necessary to assure good results.

A minimum of 200 pounds and a maximum of 700 pounds of approved ingredients impregnated with EPTAM 7-E at the recommended rate must be applied per acre.

For impregnation EPTAM 7-E on dry fertilizers, use a closed rotary-drum mixer or a similar type of closed blender equipped with suitable spray equipment. The spray nozzle (or nozzles) should be positioned inside of the mixer to provide <u>uniform</u> spray coverage of the tumbling fertilizer.

The EPTAM 7-E should be sprayed uniformly onto the fertilizer using a fine spray pattern.

The physical properties of fertilizers vary, particularly in liquid absorptive capacity. When absorptivity is sufficient, simple spray impregnation of the fertilizer with EPTAM 7-E provides a satisfactory dry mixture.

If the absorptive capacity is inadequate, use of a highly absorptive powder is required to provide a dry, free-flowing mixture.

Micro-Cel<sup>M</sup> E (Manville Sales Corp.) is the recommended absorbent powder. It should be added separately and uniformly to the prepared EPTAM 7-E fertilizer mixture in a quantity that is sufficient to provide a suitably free-flowing mixture. Generally less than 2% by weight of Micro-Cel E is required.

The amount of EPTAM 7-E actually required in the manufacture of individual fertilizer mixtures should be determined carefully for each production operation. This is necessary to ensure that the amount of EPTAM 7-E actually contained in the mixture applied to the soil represents the correct rate of use.

Bulk fertilizer impregnated with EPTAM 7-E should be applied immediately, **NOT STORED.** All bulk containers must be tightly covered while the product is being transported and applied to reduce chances of EPTAM 7-E loss via volatilization.

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# EPTAM 7-E Physical Data

Specific Gravity (20/20°C): 0.954 (typical) Pounds/Gallon (20°C): 7.94 (typical) Flashpoint: 190°F (Tag. Closed Cup) Viscosity: Sprayable down to minus 20°F.

Approved Dry Fertilizer Ingredients					
	<u>N</u>	P	<u>к</u>		
Ammonium sulfate	21	0	0		
Diammonium phosphate	18	46	) 0		
Potassium chloride	0	0	60		
Potassium sulfate	0	0	52		
Super-phosphate (single)	0	20	0		
Triple super-phosphate	0	46	0		
Urea	45	0	0		
Ammonium phosphate-sulfate	16	20	0		
11-48-0	11	48	0		

NOTE: K-Mag has been shown to be compatible with EPTAM 7-E and is approved for use.

RATE CHART FOR THE IMPREGNATION OF DRY BULK FERTILIZERS WITH EPTAM 7E							
Fertilizer Rate Per Acre	EPTAM 7E Rate Per Acre						
	3-1/2 pts. per acre	4-1/2 pts. per acre	7 pts. per acre				
200 lbs.	17-1/2 qts./ton	22-1/4 qts./ton	35 qts./ton				
250 lbs.	14 gts./ton	18 qts./ton	28 gts./ton				
300 lbs.	11-2/3 gts./ton	15 qts./ton	23-1/3 gts./ton				
350 lbs.	10 gts./ton	12-7/8 gts./ton	20 qts./ton				
400 lbs.	8-3/4 gts./ton	11-1/4 qts./ton	17-1/5 qts./ton				
450 lbs.	7-3/4 qts./ton	10 qts./ton	15-1/5 qts./ton				
500 lbs.	7 gts./ton	9 gts./ton	14 gts./ton				
550 lbs.	6-1/3 gts./ton	8-1/5 gts./ton	12-2/3 gts./ton				
600 lbs.	5-7/8 qts./ton	7-1/2 gts./ton	11-3/4 qts./ton				
650 lbs.	5-2/5 gts./ton						
700 lbs.	5 gts./ton 6-2/5 gts./ton 10 gts./ton						

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	Flow Rates for EPTAM 7-E Using Various Tee Jet* Orifices (4916)**				
Tee Jet Orifice	Ounces Per Minute	cc Per Minute	Gallons Per Hour	Pounds Per Hour	
.012	0.215	6.37	0.101	0.707	
.014	0.286	8.45	0.134	0.938	
.015	0.324	9.59	0.152	1.064	
.016	0.375	11.10	0.176	1.232	
.018	0.523	15.46	0.245	1.715	
.020	0.610	18.04	0.286	2.002	
.022	0.796	23.53	0.373	2.611	
.024	0.896	26.50	0.420	2.940	
.025	0.996	29.46	0.467	3.269	
.026	1.111	32.87	0.521	3.647	
.027	1.269	37.54	0.595	4.165	
.029	1.284	37.98	0.602	4.214	
.030	1.502	44.42	0.704	4.928	
.032	1.641	48.52	0.769	5.383	
.034	1.871	55.33	0.877	6.139	
.035	2.091	61.83	0.980	6.860	
.037	2.223	65.74	1.042	7.294	
.039	2.539	75.08	1.190	8.330	
.040	2.603	76.97	1.220	8.540	
.041	2.807	83.03	1.316	9.212	
.043	2.882	85.24	1.351	9.457	
.045	3.334	98.61	1.563	10.941	
.046	3.441	101.77	1.613	11.291	
.047	3.678	108.77	1.724	12.068	
.048	3.951	116.84	1.852	12.965	
.051	4.102	121.32	1.923	13.461	
.052	4.437	131.42	2.083	14.581	
.054	4.849	143.41	2.273	15.911	
.055	5.079	150.22	2.381	16.667	
.057	5.333	157.73	2.500	17.500	
.059	5.926	175.27	2.788	19.446	
.063	6.272	185.49	2.940	20.580	
.067	7.110	210.28	3.333	23.331	
.070	8.205	242.65	3.846	26.922	

Registered trademark of Spraying Systems Co.

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\*\* Figures were taken at 70°F. and are approximate. Be sure occasionally to measure flow in the field to make certain you have the correct orifice and because rates vary with temperature. (Flow on an .037 orifice increases from 2.2 ounces at 70°F. to 2.4 ounces at 92°F.). Use a 300 mesh screen on orifice sizes below .014 and a 200 mesh screen on all others.

Add picture to Appendix III.

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