

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Nang-Ly Chow, Ph.D.
Bayer Crop Science
2 T.W. Alexander Drive
P.O. Box 12014
Research Triangle Park, NC 27709

APR - 7 2003

Dear Dr. Chow:

Subject: Amendment - Update to match use patterns and limitations appearing on source material label [delete Leatherleaf Fern, Succulent Ornamentals (greenhouse and out-of-doors)]

Phaser 3 EC Insecticide - For Use in California EPA Registration Number 264-658 Your submission dated March 12, 2003 and received March 18, 2003

The amendment referred to above, submitted in connection with registration under FIFRA section 3(c)(7)(a), is acceptable and a stamped copy is enclosed for your records.

When preparing the finished label, please incorporate the following revisions:

- a. In the ingredients statement, please align the decimal places for both entries and the total.
- b. In the FIRST AID section, revise the fourth item of the If Swallowed advice to read: "Do not give anything by mouth to an unconscious or convulsing person.".
- c. IMPORTANT: As noted in item 2 of the General Directions for use in California, chemigation using endosulfan is not permitted in California. Therefore, delete the heading CHEMIGATION STATEMENT and all associated subheadings and text. This label already includes the prohibition "Do not apply this product through any type of irrigation system.".
- d. Likewise, in the Method of Application directions for the crop Potatoes, delete the heading "Potatoes Chemigation and its associated text.

Please submit 5 copies of labeling bearing the above revisions as soon as it becomes available. Thank you for your cooperation in this regard.

Sincerely,

George T. LaRocca Product Manager 13 Insecticide Branch Registration Division (7505C)

## ACCEPTED with COMMENTS In EPA Letter Dateds

APR - 7 2003

# Phaser® 3EC INSECTICIDE FOR USE IN CALIFORNIA

Under the Lasecticide, Fingicide, and momenticide Art, as amended, for the posticide registered under PA Res. No.

# For Agricultural or Commercial use Only Not for use or storage in or around residential sites—see Directions For Use / General Instructions for prohibited areas.

ACTIVE INGREDIENT: Endosulfan (hexachlorohexahydromethano-2,4,3-benzodioxathiepin-	3-oxide)	34.4%*
INERT INGREDIENTS:**	• • • • • • • • • • • • • • • • • • • •	65.6%
*Equivalent to 3.0 pounds of active ingredient per gallon	TOTAL	100.0%

\*\*Contains xylene range aromatic solvent

EPA Reg. No. 264-658

E.P.A. Est. No.



# KEEP OUT OF REACH OF CHILDREN DANGER PELIGRO



### **POISON**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577
For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

#### **FIRST AID**

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

#### For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**NOTE TO PHYSICIAN:** Endosulfan is a central nervous system stimulant absorbable by mouth, inhalation or through contact with skin. It may cause convulsions. There is no specific antidote. Diazepam I.V. is the drug of choice. Barbituric acid derivatives such as phenobarbital may be used additionally. A neuromuscular blocking agent may be used if convulsions persist. This type of drug may be used **only** if complete control of respiration can be maintained. Epinephrine derivatives are absolutely contraindicated.

This formulation contains petroleum hydrocarbons. Vomiting should be induced **only** under the direct supervision of a physician. Care should be taken to prevent aspiration because of the possibility of chemical pneumonia or pulmonary edema due to the organic solvent in the formulation.

#### PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Fatal if swallowed. Corrosive. Causes irreversible eye damage. Do not get in eyes, on skin, or on clothing. May be fatal if inhaled or absorbed through skin. Do not breathe vapor or spray mist. Do not contaminate food or feed. Keep out of reach of domestic animals. Food utensils such as teaspoons or measuring cups must not be used for food purposes after use in measuring pesticides.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

#### Applicators and other handlers must wear:

- · Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, or Viton® ≥14 mils
- · Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- A respirator with either 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 organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.
- · Add a chemical-resistant apron when cleaning equipment, mixing or loading

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

#### **ENGINEERING CONTROL STATEMENT**

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

#### **USER SAFETY RECOMMENDATIONS**

#### Users should:

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

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, birds, and other wildlife. Birds feeding on treated areas may be killed. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Due to the risk of runoff and drift, do not apply within a distance of 300 feet of lakes, ponds, streams and estuaries. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab, and other aquatic life are important resources. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters. This product must not be used in areas where impact on threatened endangered species is likely. Contact your State Fish and Game Agency before applying this product. Apply this product only as specified on this label. This pesticide is toxic to bees exposed to direct application. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame.

#### STORAGE AND DISPOSAL

PESTICIDE STORAGE: Do not store in or around the home.

Do not store below 20°F (-7°C).

Do not use or store near heat, open flame or hot surfaces.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or diluted material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

In case of spill: Avoid contact, isolate area, and keep out animals and unprotected persons. Confine spills.

To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container, Identify contents.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticides, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER 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. Do not cut or weld metal containers.

#### DO NOT REUSE EMPTY CONTAINER

This returnable container must not be opened or discarded.

Returnable Container Return Procedure: Return the container clean (outside only) to the place of business from which the PHASER 3EC Insecticide was purchased.

#### DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not apply this product through any type of irrigation system.

#### 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 intervals. 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 24 hours.

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

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, or Viton ≥14 mils
- Chemical-resistant footwear plus socks
- Protective evewear
- Chemical-resistant headgear for overhead exposure

#### THIS PRODUCT IS INTENDED FOR USE IN CALIFORNIA.

Be sure to read and follow the required procedures for reducing risk of contamination of aquatic ecosystems in California.

#### **GENERAL INSTRUCTIONS**

Not for use or storage in or around residential sites, including homes, non-agricultural outbuildings, non-commercall greenhouses, recreational vehicles, preschools, day care centers, and not for applications to humans and pets.

Do not use in undiluted form.

Apply the listed amount per acre when insects first appear and repeat as required, unless otherwise noted, to maintain effective control. Use in sufficient water for thorough coverage of listed crops, unless otherwise noted. Coverage of upper and lower leaf surfaces is essential for good control. For ground application, apply recommended amount of pesticide in a minimum of 10 gallons of water per acre on vegetable or row crops, unless otherwise noted. Observe use limitations. If insect control is required beyond the following use patterns, supplement the control program with other suitable pesticides.

When applying this material by aircraft, mix the recommended amount with sufficient water to provide a minimum of 1 gallon of finished spray per acre on vegetable and field crops, unless otherwise noted, and a minimum of 20 gallons of finished spray per acre on fruit and nut trees and on vines. Where more than 2 quarts of this material are recommended, mix with sufficient water to provide a minimum of finished spray equal to twice the amount of PHASER 3EC Insecticide used.

Do not plant root crops other than carrots, potatoes, sweet potatoes and sugar beets as follow-up crops.

#### **CHEMIGATION STATEMENT**

#### **CHEMIGATION USE INSTRUCTIONS—POTATOES ONLY**

Do not apply this product through any type of irrigation system to other crops.

Do not apply this product to potatoes through any type of irrigation system unless the Chemigation Application Instructions are followed.

#### APPLICATION THROUGH IRRIGATION SYSTEMS—CHEMIGATION

Apply this product only through sprinkler, including center pivot, lateral move, end tow side (wheel) roll, traveler, big gun, solid set, or hand move 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 unless the pesticide label prescribed safety devices for public water systems are in place.

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

Mix in clean supply tank the recommended amount of this product for acreage to be covered, and needed quantity of water.

This product should not be tank-mixed with other pesticides, surfactants or fertilize unless prior use has shown the combination noninjurious under your conditions of use. Follow precautionary statements and directions for all tank-mix products.

On all crops, use sufficient gallonage of water to obtain thorough and uniform coverage, but not cause runoff or excessive leaching. This will vary depending on equipment, pest problem and stage of crop growth. Application of more or less than optimal quantity of water may result in decreased chemical performance, crop injury or illegal pesticide residues.

Meter this product into the irrigation water uniformly during the period of operation. Do not overlap application. Follow recommended label rates, application timing, and other directions and precautions for crop being treated. Continuous mild agitation of pesticide mixture may be needed to assure a uniform application, particularly if the supply tank requires a number of hours to empty.

Do not apply when wind speed favors drift beyond the area intended for treatment.

#### CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Note: Bayer CropScience does not encourage connecting chemigation systems to public water supplies. The following information is provided for users who have diligently considered all other application and water supply options before selecting to make such a connection.

Public water systems means a system for the provision to the public of piped water for human consumption if such system is a consistent of service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year from systems connected to public water systems must contain a functional reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from a point of pesticide introduction. As an option the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. Three shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injections 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 contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shutdown.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

#### SPRINKLER CHEMIGATION (FOLIAR SPRAY USES)

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 functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation

system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

#### PROCEDURES FOR REDUCING RISK OF CONTAMINATION OF AQUATIC ECOSYSTEMS

#### FOR CROP USES LISTED ON THE PRODUCT LABEL

Endosulfan may be a source of contamination in aquatic ecosystems as a result of run-off from agricultural land due to discharge of irrigation water or during periods of heavy rainfall.

To minimize the chance of aquatic impact, the following conditions must be met to allow endosulfan applications:

#### **DIRECTIONS FOR USE (GENERAL)**

### IN ADDITION TO SPECIFIC INSTRUCTIONS UNDER DIRECTIONS FOR USE ON THE PRINCIPAL LABELS, THE FOLLOWING CONDITIONS MUST ALSO BE FOLLOWED FOR USE IN CALIFORNIA:

- Do not apply this product to fields during irrigation or irrigate for 72 hours following an application.
- 2. Do not apply this product through any type of irrigation system.
- 3. Do not apply more than 1.5 lbs. a.i./acre/application or more than 3.0 lbs. a.i./acre/season. (Orchard crops and strawberries exempted on rate/acre/application restriction).
- 4. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.
- Do not apply by ground or air within a distance of 300 feet to natural bodies or water including lakes, ponds, streams, and estuaries.

#### FOR DRIFT CONTROL

- All application equipment should be properly maintained and calibrated using appropriate carriers.
- 2. Do not make aerial or ground applications during temperature inversions.
- 3. Make aerial or ground applications when the wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 10 mph. Do not discharge at a height of more than 10 feet above the crop or target.
- 4. For aerial applications, a positive shutoff system shall be in place to control flow of liquid to spray nozzles as follows: each individual nozzle shall be equipped with a check valve and the flow controlled by a suckback device or a boom pressure release device; or each nozzle shall be equipped with a positive action valve.
- For aerial applications, the spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip or rotor vortices.
   The working boom length must not exceed 75 percent of wing span or rotor diameter.
- 6. Aircraft boom pressure shall not exceed 40 pounds per square inch.
- 7. Aircraft nozzles shall be equipped with orifices directed backward parallel to the horizontal axis of the aircraft in flight.
- 8. Aircraft nozzles shall not be equipped with any device or mechanism which would cause a sheet, cone, fan, or similar type dispersion of the discharged material except as otherwise provided.
- 9. Fixed wing aircraft and helicopters operating in excess of 60 mph shall be equipped with jet nozzles having an orifice not less than 1/16 inch in diameter (D-4 or larger).
- 10. Helicopters operating at 60 mph or less shall be equipped with nozzles having an orifice not less than 1/16 inch in diameter. A number 46 or equivalent whirlplate may be used.
- 11. For ground applications, equipment other than handguns shall be equipped with nozzles having an orifice not less than 1/16 inch in diameter or larger. Boom nozzles shall be operated at a boom pressure not to exceed 30 pounds per square inch.

#### ACCEPTABLE SITES FOR ENDOSULFAN APPLICATION

- 1. FIELDS, WITH NO DRAINS, HAVING CONTAINMENT THROUGH BERMS (able to hold irrigation water and normal rainwater), LEVEES AND NON-DRAINING CIRCULATION SYSTEMS.
- FIELDS WITH DRAINS, BUT DRAINAGE FLOWS TO SUMP, FARM POND, EVAPORATION POND OR RECIRCULATION SYSTEM WITHOUT DRAINAGE (uncontrollable overflow acceptable, e.g., 10 or 100 year flood). Only grower maintained recirculation systems without drainage are acceptable.
- FIELDS WITH SURFACE DRAINS THAT NATURALLY FLOW ONTO PASTURELAND OR FALLOW FIELDS THAT HAVE NO CHANNELED DRAINAGE AND ARE AT LEAST 300 FEET LONG.

#### **UNACCEPTABLE SITES FOR ENDOSULFAN APPLICATION**

1. FIELDS DRAINING DIRECTLY INTO SURFACE WATERS SUCH AS STREAMS, RIVERS, LAKES, PONDS, MARSHES, BAYS, ESTUARIES, OR THE OCEAN.

- 2. FIELDS DRAINING INTO SURFACE DRAINAGE DITCHES OR CANALS THAT FLOW DIRECTLY INTO SURFACE WATERS SUCH AS STREAMS, RIVERS, LAKES, PONDS, MARSHES, BAYS, ESTUARIES, OR THE OCEAN.
- 3. ANY AND ALL FIELDS WITH SURFACE DRAINAGE PATTERNS IN THE MOSS LANDING DRAINAGE SYSTEM HAVING MAIN ARTERIES THAT DRAIN INTO THE ELKHORN SLOUGH (northern portion of Monterey County).
- 4. ANY AND ALL FIELDS WITH DRAINAGE PATTERNS IN THE SAN DIEGO CREEK DRAINAGE SYSTEM HAVING MAIN ARTERIES THAT DRAIN INTO NEWPORT BAY.

## OBSERVE DAYS INTERVAL BETWEEN LAST APPLICATION AND HARVEST INDICATED BY NUMBER IN () FOLLOWING THE CROP.

APPLES (30)

Insects Controlled	Rate of Application	Method of Application
Aphids (including Apple Aphid, Rosey Apple Aphid, Woolly Apple Aphid) Apple Rust Mite White Apple Leafhopper (first generation)		For best control of first generation White Apple Leafhopper, apply when nymphs first appear on leaves. If necessary, prior to petal fall, use 1 quart per 100 gallons to control Apple Aphid and Rosy Apple Aphid.

Do not feed pomace from treated apples to livestock.

Do not feed cull fruits to animals or allow livestock to graze in treated orchards.

Do not make more than 2 applications during the fruiting period.

Do not make more than 3 applications per year.

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.

APRICOTS (30), NECTARINES (30), PEACHES (30)

Insects Controlled	Rate of Application	Method of Application
Aphids (including Black Cherry Aphid, Black Peach Aphid, Green Peach Aphid, Rusty Plum Aphid)	2/3 quart per 100 gallons or a maximum of 3 1/3 quarts per acre.	Make applications when insects appear or feeding is noticed.
Catfacing insects (Stink Bug type)		
Peach Silver Mite		
Peach Twig Borer		

Do not feed cull fruits to animals or allow livestock to graze in treated orchards.

Do not make more than 2 applications per year.

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.

#### BARLEY, OATS, RYE, WHEAT

Insects Controlled	Rate of Application	Method of Application
Army Cutworm	2/3 quart per acre	Make applications when insects appear or feeding is noticed.
Aphids (including Russian Wheat Aphid)	2/3 to 1 quart per acre	

Do not apply after heads begin to form.

Do not feed treated forage to livestock.

Do not make more than 2 applications per year.

BEANS, Succulent and Dry (except Lima Beans) (3) and SOUTHERN FIELD PEAS (Succulent type, including Blackeved Peas, Crowder Peas and Southern Peas (3)

Insects Controlled	Rate of Application	Method of Application
Black Bean Aphid	2/3 to 1 1/3 quarts per acre	Make applications when insects appear or feeding is
Bean Leaf Skeletonizer		noticed.
Cucumber Beetle		
Flea Beetle		
Green Stink Bug		
Leafhopper		
Mexican Bean Beetle		
Aphids	1 1/3 quarts per acre	
Western Bean Cutworm		
Whitefly		

Do not feed treated threshings or allow livestock to graze in treated fields.

Do not use on Lima Beans that are to be removed from the field for processing.

Do not make more than 3 applications per year.

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.

BROCCOLI (7), BRUSSELS SPROUTS (14), CABBAGE (7), CAULIFLOWER (14)

Insects Controlled	Rate of Application	Method of Application
Cabbage Aphid	1 to 1 1/3 quarts per acre	Make applications when insects appear or feeding is
Cabbage Looper		noticed.
Cross-striped Cabbageworm		
Diamondback Moth (larvae)		
Flea Beetle		
Harlequin Bug		
Imported Cabbageworm	ļ	
Stink Bug		
Armyworm	1 1/3 quarts per acre	
Cutworm		
Whitefly		

Do not make more than 2 applications per year.

Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 2 2/3 quarts) per acre per year.

CARROTS (7)

Insects Controlled	Rate of Application	Method of Application
Green Peach Aphid	2/3 to 1 1/3 quarts per acre	Make applications when insects appear or feeding is noticed.
Flea Beetle	1 1/3 quarts per acre	
Whitefly		

Do not use tops for food or feed.

Do not make more than 1 application per year.

**CELERY (4)** 

Insects Controlled	Rate of Application	Method of Application
Green Peach Aphid	2/3 to 1 1/3 quarts per acre	Make applications when insects appear or feeding inoticed.
Cabbage Looper		
Flea Beetle	1 1/3 quarts per acre	
Whitefly		
Do not make more than 1 application p	er year.	
Do not exceed a maximum of 1.0 lb. as	ctive ingredient (i.e., 1 1/3 quarts) per	acre per year.

CELERY (7)

Insects Controlled	Rate of Application	Method of Application
Green Peach Aphid	2/3 quart per acre	Make applications when insects appear or feeding is noticed.
Do not make more than 2 applications	per year.	
Do not exceed a maximum of 1.0 lb. ac	ctive ingredient (i.e., 1 1/3 quarts) per	acre per year.

CHERRIES (21)

Insects Controlled	Rate of Application	Method of Application
Black Cherry Aphid	2/3 quart per 100 gallons or 2	Make applications when insects appear or feeding is
Plum Rust (Nursery) Mite	2/3 to 3 1/3 quarts per acre	noticed.
Pacific Northwest only:	2/3 quart per 100 gallons or 2	For Bud Moth control, apply at "popcorn" stage. For
Eyespotted Bud Moth	2/3 to 3 1/3 quarts per acre	Leafroller control, apply during pre-pink stage of
Fruittree Leafroller		growth.

Do not feed cull fruits to animals or allow livestock to graze in treated orchards.

Do not make more than 2 applications per year.

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.

CHERRY, PEACH, PLUM NURSERY STOCK DIP

Insects Controlled	Rate of Application	Method of Application
Peachtree Borer	2 2/3 quarts per 40 gallons	Mix thoroughly. Immerse trees so that the roots and crowns are covered well above the grafting bud scar.
Plant immediately or dry before returni	ng stock to storage.	
Full Personal Protective Equipment (Pl	PE) requirements for applicators also	apply to this dipping operation.

CITRUS (Non-Bearing Trees and Nursery Stock)

Insects Controlled	Rate of Application	Method of Application	
Citrus Aphid	2/3 quart per 100 gallons or a maximum of 3 1/3 quarts per acre	Make applications when insects appear or feeding is noticed.	
Do not apply to bearing trees or trees that will bear fruit within 12 months.			
Do not make more than 2 applications per year.			
Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.			

COLLARDS (21)

Insects Controlled	Rate of Application	Method of Application
Aphids	1 quart per acre	Make applications when insects appear or feeding is
Cabbage Looper		noticed.
Diamondback Moth (larvae)		
Flea Beetle		
Harlequin Bug		
Imported Cabbageworm		
Whitefly		

Do not make more than 1 application per year.

Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1 quart) per acre per year.

#### COTTON

Insects Controlled	Rate of Application	Method of Application
Aphids	1/2 to 1 quart per acre	Make applications when insects appear or feeding is noticed. For control of Aphids, thorough coverage is important.
Boll Weevil	2/3 to 2 quarts per acre	
Bollworm	1 1/3 to 2 quarts per acre	
Cabbage Looper	İ	
Cotton Leaf-perforator		
Fleahopper		
Lygus Bug		
Stink Bug		
Whitefly	1 1/3 quarts per acre	
Thrips	2 quarts per acre	

Applications may be made using ground or aerial application equipment.

The higher rate should be used under heavy pest pressure.

Do not apply after bolls open.

Do not graze dairy or meat animals in treated fields.

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.

CUCUMBERS (2), MELONS (2), PUMPKINS (2), SUMMER AND WINTER SQUASH (2)

Insects Controlled	Rate of Application	Method of Application
Aphids	2/3 to 1 1/3 quarts per acre	Make applications when insects appear or feeding is
Cucumber Beetle		noticed. For Squash Vine Borer control, apply weekly to flower buds, stems, and vines beginning when moths first appear.
Melonworm		
Pickleworm		,.
Rindworm (on watermelons)		
Squash Beetle		
Squash Bug		
Squash Vine Borer		
Striped Flea Beetle		
Cabbage Looper	1 1/3 quarts per acre	
Omniverous		
Leafroller		
Whitefly		

Do not make more than 3 applications per year.

EGGPLANT (1)

Insects Controlled	Rate of Application	Method of Application
Blister Beetle	2/3 to 1 1/3 pints per acre	Make applications when insects appear or feeding is
Colorado Potato Beetle		noticed.
Flea Beetle		
Green Peach Aphid		
Green Stink Bug		
Whitefly	1 1/3 pints per acre	

Do not make more than 2 applications per year.

Do not exceed a maximum of 0.5 lb. active ingredient (i.e., 1 1/3 pints) per acre per year.

**GRAPES (7)** 

Insects Controlled	Rate of Application	Method of Application
Grape Leafhopper	2/3 quart per 100 gallons or	Make applications when insects appear or feeding is
Grape Phylloxera (leaf form)	1 1/2 to 2 quarts per acre	noticed.
Rose Chafer		

Do not apply to Concord variety as severe plant injury is likely to occur.

Ground application is preferred.

Do not make more than 3 applications per year.

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.

**KALE (21)** 

Insects Controlled	Rate of Application	Method of Application
Cabbage Flea Beetle	1 quart per acre	Make applications when insects appear or reeding is
Harlequin Bug		noticed.
Imported Cabbageworm	<u> </u>	
Do not make more than 1 application pe	er year.	

Do not make more than 1 application per year.

Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1 quart) per acre per year.

LETTUCE (14)

Insects Controlled	Rate of Application	Method of Application
Cabbage Looper	1 to 1 1/3 quarts per acre	Make applications when insects appear or feeding is
Diamondback Moth (larvae)		noticed.
Green Peach Aphid		1
Imported Cabbageworm		
Whitefly	1 1/3 quarts per acre	

On Head Lettuce: Do not make more than 3 applications after thinning. Remove wrapper leaves at harvest.

On Leaf Lettuce:

Do not make more than 2 applications per year.

Do not feed crop refuse to livestock.

**MUSTARD GREENS (21)** 

insects Controlled	Rate of Application	Method of Application
Aphids	1 quart per acre	Make applications when insects appear or feeding is
Cabbage Looper		noticed.
Diamondback Moth (larvae)		
Flea Beetle		
Harlequin Bug		
Imported Cabbageworm		
Whitefly		

Do not make more than 1 application per year.

Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1 quart) per acre per year.

PEARS (7)

Insects Controlled	Rate of Application	Method of Application
Pear Psylla	3 1/3 quarts per acre	Apply in a minimum of 10 gallons of water for aerial application or in 300 gallons of water for dilute application. Apply when adults are first observed or nymphs are small and repeat to maintain control.
Pear Rust Mite Consperse Stink Bug (foliar treatment)	2/3 quart per 100 gallons or 2 2/3 to 3 1/3 quarts per acre	Make applications when insects appear or feeding is noticed. Stink Bugs must be wet by spray to obtain control.
Consperse Stink Bug (soil treatment)	2/3 quart per 100 gallons; 200 to 400 gallons per acre	Apply to orchard floor and around trees prior to bloom.
Pear Leaf Blister Mite	1/3 to 2/3 quart per 100 gallons	Apply to trees as a post-harvest or dormant treatment.

Do not feed cull fruits to animals or allow livestock to graze in treated orchards.

Do not make more than 2 applications per year.

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.

NOTE: Aerial application may not result in satisfactory control and should only be employed if impossible to apply by ground.

#### **PECANS**

Insects Controlled	Rate of Application	Method of Application
Black Pecan Aphid Pecan Nut Casebearer Spittlebug	1 quart per 100 gallons	Make applications when insects appear or feeding is noticed. For Casebearer, apply when eggs of first generation appear on the tips of young nuts. Another application may be required after the second generation of eggs is deposited. For Spittlebug, apply when first leaves are half grown and repeat as required.

Do not apply after shuck split.

Do not graze livestock on orchard crops or grasses in treated areas.

Do not make more than 2 applications per year.

PEPPERS (1)

Insects Controlled	Rate of Application	Method of Application
Flea Beetle	2/3 quart per acre	Make applications when insects appear or feeding
Green Peach Aphid		noticed.
Hornworm		
Pepper Maggot		
Do not make more than 2 applications	per year.	
Do not exceed a maximum of 1.0 lb. ac	ctive ingredient (i.e., 1 1/3 quarts) per	acre per vear.

PEPPERS (4)

Insects Controlled	Rate of Application	Method of Application
Flea Beetle	2/3 to 1 1/3 quarts per acre  Make applications when insects a noticed.	Make applications when insects appear or feeding is
Green Peach Aphid		noticed.
Hornworm		
Pepper Maggot		
Whitefly	1 1/3 quarts per acre	
Do not make more than 2 applications	per year.	
Do not exceed a maximum of 2.0 lbs. a	ictive ingredient (i.e., 2 2/3 quarts) per	acre per year.

PINEAPPLE (For Fresh Market Only) (7)

Insects Controlled	Rate of Application	Method of Application
Pineapple Fruit Mite	2 to 2 2/3 quarts per acre	Make applications when insects appear or feeding is noticed. Apply at intervals of 7 to 10 days, it necessary, particularly during the 40-day blooming period.

Do not feed forage or pineapple by-products to livestock.

Do not make more than 2 applications per year.

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.

PLUMS (7), PRUNES (7)

Insects Controlled	Rate of Application	Method of Application
Fruittree Leafroller (Pacific Northwest Only)	2/3 quart per 100 gallons or 2 2/3 to 3 1/3 quarts per acre	Apply during pre-pink stage of growth when insects appear or feeding is noticed.
Aphids (including Hop Aphid, Leafcurl Aphid, Thistle Aphid) Plum Rust (Nursery) Mite	2/3 quart per 100 gallons or 2 2/3 to 3 1/3 quarts per acre	For control of Aphids, apply when eggs hatch during pre-bloom or petal fall. Summer applications should be made before leaves curl.
Peach Twig Borer	2/3 quart per 100 gallons or 2 2/3 to 3 1/3 quarts per acre	Make applications when insects appear or feeding is noticed.
Lesser Peachtree Borer Peachtree Borer	2/3 to 1 quart per 100 gallons or 2 2/3 to 3 1/3 quarts per acre	Best control is obtained with a single application, post- harvest after leaves have dropped. Spray all bark area from ground level to lower scaffold limbs.

Do not allow livestock to graze on orchard crops or grasses in treated areas.

Do not make more than 2 applications per year.

POTATOES (1)

Insects Controlled	Rate of Application	Method of Application
Aphids	2/3 to 1 1/3 quarts per acre	Make applications when insects appear or feeding is noticed.
Armyworm		
Colorado potato beetle		POTATOES - CHEMIGATION:
Green stink bug		For application by irrigation systems, apply the specified amount of PHASER 3EC Insecticide per
Leffootted bug		acre. Follow all directions given under the
Plant Bug		Chemigation Use Instructions section of this label.
Potato Flea Beetle		
Potato Leafhopper		
Potato Tuberworm		
Threelined Potato Beetle		
European Corn Borer	1 to 1 1/3 quarts per acre	
Potato Psyllid		
False Chinch Bug	1 to 1 1/3 quarts per acre	
Whitefly		
Do not make more than 6 applications	ner vear	

Do not make more than 6 applications per year.

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.

SPINACH (21)

Insects Controlled	Rate of Application	Method of Application
Crown Mite	1 quart per acre	Make applications when insects appear or feeding is
Flea Beetle		noticed.
Green Peach Aphid		
Whitefly		
Do not make more than 1 application p	ər year.	
Do not exceed a maximum of 0.75 lb. a	ctive ingredient (i.e., 1 quart) per acre	e per year.

STRAWBERRIES (4)

Insects Controlled	Rate of Application	Method of Application
Meadow Spittlebug Strawberry Aphid Tarnished Plant Bug Whitefly	1 1/3 quarts per acre	Make applications when insects appear or feeding is noticed. Do not reapply within 15 days or more than twice during a 35-day period when fruit is present.
Cyclamen Mite	2 2/3 quarts per acre in 400 gallons	Make applications when insects appear or feeding a noticed. Thoroughly wet the foliage, stem and crown of the plant. For multiple applications, do not apply at intervals less than 35 days when fruit is present.

STRAWBERRIES - Northwest Use Only

Insects Controlled	Rate of Application	Method of Application
Garden Symphylan (aids in reducing damage)	1 1/3 quarts per 100 gallons	Mix thoroughly. Dip entire plant. When immersing bundles of plants, make certain any trapped air is forced out to assure thorough wetting of the entire plant.
Drain and allow plants to dry before setting the	nem out in the field.	
Full Personal Protective Equipment (PPE) re	quirements for applicators also a	pply to this dipping operation.

SWEET CORN (Fresh Vegetable Use Only) (1)

Insects Controlled	Rate of Application	Method of Application
Corn Leaf Aphid Whitefly	1 1/3 quarts per acre	Make applications when insects appear or feeding is noticed.
Com Earworm	2 quarts per acre	Apply when silks first appear and continue until they begin to dry. Allow 5 days between applications.

Do not apply to Sweet Corn to be processed.

Do not feed treated forage or ensilage to livestock or allow livestock to graze in treated fields.

Do not make more than 3 applications per year.

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 quarts) per acre per year.

**SWEET POTATOES (1)** 

Insects Controlled	Rate of Application	Method of Application
Sweet Potato Flea Beetle Sweet Potato Weevil	2/3 quart per acre	Make applications when insects appear or feeding is noticed. For Flea Beetle control, begin applications shortly after transplanting or as soon as flea beetles appear. For Sweet Potato Weevil control, apply in sufficient water for complete coverage. Applications may be made to transplants in the nursery and/or in the field. Repeat applications may be made as necessary.

Do not feed cull potatoes to livestock or allow livestock to graze in treated fields.

Do not make more than 3 applications per year.

**TOMATOES (Field and Greenhouse) (2)** 

Insects Controlled	Rate of Application	Method of Application
Aphids	2/3 to 1 1/3 quarts per acre	Make applications when insects appear or feeding is
Blister Beetle		noticed.
Colorado Potato Beetle		
Fiea Beetle		
Tornato Hornworm		
Webworm		
Cabbage Looper	1 to 1 1/3 quarts per acre	
Stink Bug		
Tomato Fruitworm	1 1/3 quarts per acre	
Tomato Russet Mite		
Whitefly		
Yeilowstriped Armyworm		
Whitefly	2/3 quart per 100 gallons of water. Use 100 to 200 gallons of spray per acre	Make applications when insects appear or feeding is noticed. Higher spray volumes may be necessary for thorough coverage when Whitefly populations exist.

## COMMERCIALLY GROWN ORNAMENTALS GROWN OUTDOORS ONLY

#### **ORNAMENTAL TREES AND SHRUBS**

DOUGLAS FIR (Grown for Omamentals, Nursery Stock or Christmas Trees) Pacific Northwest Only

Insects Controlled	Rate of Application	Method of Application
Aphids Cooley Spruce Gall Adelgid Douglas Fir Needle Midge	2/3 quart per 100 gallons (1 1/3 teaspoons per gallon)	Make applications when insects appear or feeding is noticed. For control of Gall Adelgid, apply when white cottony tufts appear. For control of Needle Midge, apply in late April or early May just before buds open.
Food utensils such as teaspoons must not Do not exceed a maximum of 3.0 lbs. activ	• •	· ·

SHADE TREES (except Birch), SHRUBS

Insects Controlled	Rate of Application	Method of Application
Aphids	2/3 quart per 100 gallons (1 1/3 teaspoons per gallon)	Make applications when insects appear or feeding is noticed.
Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides.		
Do not exceed a maximum of 3.0 lbs. ac	tive ingredient (i.e., 4 quarts) per acre	per year.

#### IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and should be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. Bayer CropScience disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.



Bayer CropScience LP P.O. Box 12014, 2 T.W. Alexander Drive RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709 1-866-99BAYER (1-866-992-2937)

Phaser® 3EC Insecticide - For Use in California (PENDING) Submitted 3/11/03.