

RESTRICTED USE PESTICIDE

**Due to very high acute toxicity to
Humans and Birds**

For retail sale to and use only by certified applicator or persons under their direct supervision and only for those uses covered by the certified applicator's certification. Direct supervision for this product is defined as the certified applicator being physically present during application, mixing, loading, repair and cleaning of application equipment. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

**HELENA
- PARATHION 4-E
Emulsifiable Liquid - An Agricultural Insecticide**

ACTIVE INGREDIENTS	(By Weight)
Parathion (O,O-Diethyl-O-p-nitrophenyl phosphorothioate).....	44.55
Related Compounds.....	1.41
INERT INGREDIENTS.....	54.04
Total.....	100.00%

One gallon of Helena Parathion 4E contains 4 pounds of Ethyl Parathion.



POISON

See Side Panels
for Antidote &
Precautions

DANGER

Keep Out of
Reach of
Children

PELIGRO: AL USARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta la haya sido explicado ampliamente.

E.P.A. REG. NO. 5905-82

First letter of Product batch code indicates producing establishment.

5905-FL-1=TF • 5905-GA-1=CG • 5905-AR-1=WA • 5905-OK-1=AO • 5905-TX-2=AT
5905-CA-1=KC • 5905-LA-3=DL

Manufactured by **HELENA CHEMICAL COMPANY**
Memphis, Tn. 38137

ACCEPTED
NOV 9 1987
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended for the pesticide
registered under
EPA Reg. No. 5905-82

Net Content:

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Precautionary Statements Hazards to Humans And Domestic Animals **DANGER—POISON**



DO NOT SWALLOW

POISONOUS IF SWALLOWED

IF SWALLOWED— Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or blunt object. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.



DO NOT TOUCH

POISONOUS BY SKIN CONTACT

POISONOUS if touched by hands or spilled or splashed on skin, in eyes or on clothing (liquid goes through clothes.)

POISONOUS IF BREATHED

Breathing vapors, spray mist or dust may be fatal.

STATEMENT OF PRACTICAL TREATMENT

POISONING SYMPTOMS

Parathion is a very dangerous poison. It rapidly enters the body by contact with all skin surfaces and eyes. Clothing wet with this material must be removed immediately. Exposed persons must receive prompt medical treatment or they may die.

Some of the signs and symptoms of poisoning are: Headache, nausea, vomiting, cramps, weakness, blurred vision, pin-point pupils, tightness in chest, labored breathing, nervousness, sweating, watering of eyes, drooling or frothing of mouth and nose, muscle spasms and coma.



DO NOT BREATHE

Call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to parathion and describe his condition.

✚ FIRST AID TREATMENT ✚

Call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to parathion and describe his condition.

If breathing has stopped, start artificial respiration immediately and maintain until doctor sees victim.

If swallowed, drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. See doctor immediately.

NOTE TO PHYSICIAN

Since any symptoms from absorption of this combination product are likely to be those of parathion intoxication, treatment should be directed towards the relief of cholinesterase inhibition.

Antidote — administer atropine sulfate in large doses, TWO to FOUR mg. intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minute intervals until signs of atropinization appear. 2-PAM chloride is also antidotal and may be administered in conjunction with atropine. **DO NOT GIVE MORPHINE OR TRANQUILIZERS.**

Parathion is a strong cholinesterase inhibitor affecting the central and peripheral nervous systems and producing cardiac and respiratory depression. At first sign of pulmonary edema, the patient should be given

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supplemental oxygen and treated symptomatically. Continued absorption of the poison may occur and fatal relapses have been reported after initial improvement. **VERY CLOSE SUPERVISION OF THE PATIENT IS INDICATED FOR AT LEAST 48 HOURS.**

Consult your State Agricultural Extension Service or Experiment Station regarding posting treated areas.

ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to fish and wildlife. Fish and other aquatic organisms may be killed at recommended application rates. Do not contaminate water by cleaning of equipment or disposal of waste.

This product is extremely toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops or weeds if bees are visiting the treatment area.

ENDANGERED SPECIES RESTRICTIONS

The use of any pesticide in a manner that may kill or otherwise harm an endangered or threatened species or adversely modify their habitat is a violation of federal laws. The use of this product is controlled to prevent death or harm to endangered or threatened species that occur in the following counties or elsewhere in their range.

Before using this pesticide in the following counties you must obtain the EPA Cropland Endangered Species Bulletin. The use of this pesticide is prohibited in these counties unless specified otherwise in the Bulletin. The EPA Bulletin is available from either your County Agricultural Extension Agent, the Endangered Species Specialist in your State Wildlife Agency Headquarters or the appropriate Regional Office of either the U.S. Fish and Wildlife Service (FWS) or the U.S. Environmental Protection Agency. THIS BULLETIN MUST BE REVIEWED PRIOR TO PESTICIDE USE.

STATE (Regional office FWS) Species	COUNTY	
ALABAMA (Atlanta, GA.) Slackwater darter	LAUDERDALE	MADISON
Alabama cavefish	LIMESTONE	
Freshwater mussels	LAUDERDALE	
	COLBERT	MARSHALL
	JACKSON	MORGAN
ARIZONA (Albuquerque, N.M.) Woundfin	MOHAVE	
Bonytail chub	MOHAVE	
Gila topminnow	GRAHAM	SANTA CRUZ
ARKANSAS (Atlanta, GA.)	CLAY	RANDOLPH
Freshwater mussels	CLARK	SHARP
	CROSS	ST. FRANCIS
	LAWRENCE	
Ozark cavefish	BENTON	
Leopard darter	SEVIER	
CALIFORNIA (Portland, OR.) Delta green ground beetle	SOLANO	
Valley elderberry longhorn beetle	MERCED	
Aleutian Canada goose	SACRAMENTO	
	COLUSA	SUTTER
	MERCED	STANISLAUS
Kern primrose sphinx moth	KERN	
Blunt-nosed leopard lizard	FRESNO	MONTEREY
	KERN	SAN LUIS OBISPO
	KINGS	SANTA BARBARA
	MADERA	STANISLAUS
	MERCED	TULARE
Santa Cruz long-toed salamander	MONTEREY	SANTA CRUZ
Unarmored three-spine stickleback	LOS ANGELES	SANTA BARBARA

STATE (Regional office FWS) Species	COUNTY	
COLORADO (Denver, CO.) Colorado squawfish	BLANCO DELTA GARFIELD MESA	MOFFAT RIO ROUTT
Humpback chub	MESA	
FLORIDA (Atlanta, GA.) Everglade Kite	BROWARD DADE	GLADES PALM BEACH
Species		
KENTUCKY (Atlanta, GA.) Freshwater mussels	BALLARD EDMONDSON JACKSON LAUREL MARSHALL	MCCRACKEN PULASKI ROCKCASTLE WARREN WAYNE
MARYLAND (Newton Corners, MA.) Maryland darter	HARFORD	
MISSISSIPPI (Atlanta, GA.) Bayou darter	COPIAH	
MISSOURI (Twin Cities, MN.) Ozark cavefish	CHRISTIAN GREENE JASPER LAWRENCE	NEWTON BARRY STONE
NEVADA (Portland, OR.) Woundfin	CLARK	
Pahranaqat bonvtail	LINCOLN	
Cui-ui	WASHOE	
Pahrump killifish	CLARK	WHITE PINE
NEW MEXICO (Albuquerque, N.M.) Pecos gambusia	CHAVES EDDY	
NORTH CAROLINA (Atlanta, GA.) Spotfin chub	MACON	SWAIN
OHIO (Twin Cities, MN.) Scioto madtom	CHAMPAGNE FRANKLIN LOGAN	MADISON PICKAWAY UNION
OKLAHOMA (Albuquerque, N.M.) Leopard darter	LEFLORE	
Ozark cavefish	MCCURTAIN	
TENNESSEE (Atlanta, GA.) Slackwater darter	DELAWARE	
Slender chub	LAWRENCE	
Spotfin chub	WAYNE	
Freshwater mussels	CLAIBORNE CUMBERLAND FENTRESS	HANCOCK MORGAN
	BLOUNT CLAIBORNE DECATUR FRANKLIN KANCOCK	MARSHALL MAURY RHEA ROANE SCOTT
	HARDIN LINCOLN LOUDON	SEQUATCHIE SMITH SULLIVAN
TEXAS (Albuquerque, N.M.) Attwater's greater prairie chicken	ARANSAS AUSTIN COLORADO FORT BEND JEFF DAVIS	GOLIAD REFUGIO VICTORIA
Comanche Springs pupfish		

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STATE (Regional office FWS) Species	COUNTY	
Texas (con't)		
Pecos gambusia	JEFF DAVIS PECOS	REEVES
Texas blind salamander	HAYS	
San Marcos salamander	HAYS	
San Marcos gambusia	HAYS	
Houston toad	BASTROP	BURLESON
Fountain darter	HAYS	
UTAH (Denver, CO.)		
Woundfin	WASHINGTON	
Humpback chub	GRAND	
Bonetail chub	GRAND	UINTAH
Colorado squawfish	CARBON	KANE
	DUCHESNE	SAN JUAN
	EMERY	UINTAH
	GARFIELD	WAYNE
	GRAND	
VIRGINIA (Newton Corners, MA.)		
Spotfin chub	SCOTT	WASHINGTON
Freshwater mussels	LEE	TAZEWELL
	RUSSELL	WASHINGTON
	SCOTT	WISE
	SMYTH	

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

RE-ENTRY STATEMENT

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

Do not enter treated areas for 48 hours unless appropriate protective clothing is worn.

Protective clothing means, at least, a hat or other suitable head covering, a long sleeved shirt and long legged trousers or a coverall type garment (all of closely woven fabric covering the body, including the arms and legs), shoes and socks.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Inform workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated and appropriate actions to take in case of accidental exposure. An example of such information is given under written warnings. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information:

DANGER

Area treated with Ethyl Parathion on (insert date). Do not enter without appropriate protective clothing for 48 hours (insert State Department of Agriculture's re-entry interval, if more restrictive).

In case of accidental exposure to pesticide spray or dust, wash the skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse. If in eyes, flush with plenty of water. If inhaled, go to an area where the pesticide has not been applied. Get medical attention if needed.

"Reentry into apple, citrus, peach, nectarine or grape fields in the states of Arizona, California, Nevada, New Mexico, Oklahoma, Texas, and Utah is prohibited for seven days after the end of application, unless all protective clothing and equipment required for early re-entry as described elsewhere on the label is worn. Reentry into all other treated areas is prohibited for 48 hours after end of application, unless all required protective clothing and equipment is worn."

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WORK SAFETY RULES

THIS PRODUCT MAY BE FATAL IF SWALLOWED, INHALED, OR IF ALLOWED TO CONTACT SKIN. FAILURE TO PROPERLY FOLLOW ALL INSTRUCTIONS FOR PROTECTIVE CLOTHING AND EQUIPMENT WILL INCREASE YOUR RISK.

USE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT DURING MIXING/LOADING, APPLICATION, REPAIR AND CLEANING OF APPLICATION EQUIPMENT, DISPOSAL OF PESTICIDE, AND EARLY REENTRY INTO TREATED FIELDS:

Waterproof pants and coat; heavy-duty chemical-resistant gloves; rubber boots or rubber overshoes; hood or wide-brimmed hat; safety goggles or face shield; NIOSH approved respirator. In addition, mixer/loaders must wear a chemical resistant apron when using the concentrated product. During aerial application in nonenclosed cockpits, a helmet with a visor may be substituted for the hood or wide-brimmed hat and safety goggles or face shield requirements.

IF MIXING/LOADING IS PERFORMED USING A CLOSED SYSTEM, THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT MAY BE WORN AS AN ALTERNATIVE:

Heavy-duty chemical resistant gloves; chemical resistant apron, long-sleeved shirt (or gauntlets and short sleeve shirt) and long-legged pants; shoes and socks.

Safety goggles or a faceshield must be worn when the system is under pressure. All other protective clothing and equipment required for use with open systems must be available nearby.

IF APPLICATION IS PERFORMED USING AN ENCLOSED CAB OR COCKPIT, THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT MAY BE WORN AS AN ALTERNATIVE:

Clean long-sleeved shirt and long-legged pants. All other protective clothing and equipment required for use during application must be available in the cab and must be worn when exiting the cab into treated areas. If used for this purpose, contaminated clothing may not be brought back into the cab unless in an enclosure such as a plastic bag.

REMEMBER- THIS CLOTHING IS NOT INTENDED TO PROTECT YOU DURING REPAIR AND CLEANING OF APPLICATION EQUIPMENT OR DURING EARLY REENTRY! REFER TO THE INSTRUCTIONS ABOVE.

HUMAN FLAGGERS ARE STRICTLY PROHIBITED DURING AERIAL APPLICATION.

IMPORTANT! If pesticide comes in contact with skin, wash off with soap and water, and contact a physician immediately. Always wash hands, face, and arms with soap and water before smoking, eating, drinking, or toileting.

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AFTER WORK: Wash gloves with soap and water before removing. Take off all work clothes and shoes. Store protective clothing separately from personal clothing. Launder protective clothing after each use. Shower using soap and water. Wear only clean clothes when leaving job. Do not wear contaminated clothing. Personal clothing worn during mixing/loading, application, repair and cleaning of application equipment, disposal of pesticide, and early reentry into treated fields must be stored and laundered separately from household articles. Clothing and equipment heavily contaminated or drenched with parathion must be destroyed according to state and local regulations.

HEAVILY CONTAMINATED OR DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.

Respirators should be cleaned and cartridges replaced according to instructions included with respirators. Replace gloves frequently.

Storage and Disposal

Pesticide Storage

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 dilute 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. Call 901-761-0050.

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 pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal

Metal containers- 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.

Plastic containers- Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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DIRECTIONS FOR MIXING AND SPRAYING

Mix in water with agitation; agitate while spraying. Apply to row and field crops in 3 to 10 gals. (California only: use 20 to 100 gals.) of water per acre by ground spray rig or 1 to 3 gals. (California only: use 5 to 15 gals.) of water by airplane.

COMPATIBILITY — Avoid combinations containing highly alkaline materials such as lime-Sulfur solutions or lime. Alkaline compounds will reduce the effectiveness of Parathion.

ALFALFA, CLOVER: Armyworms, Alfalfa Weevil Larvae, Webworms — $\frac{1}{2}$ to $\frac{3}{4}$ pint per acre. Do not apply within 15 days of harvest.

ALMONDS: Peach Twig Borer, San Jose Scale, Parlatoria Scale, Mite Eggs — (Dormant Application) 1 pint plus dormant oil emulsion or dormant emulsive oil at the dosage recommended for the specific oil product per 100 gals. Fruit tree Leafroller, Tent Caterpillar, Peach Twig Borer — 1 pint per 100 gals. Do not apply after hulls open. Do not exceed 600 gals. Dilute spray per acre. Do not apply within 14 days of harvest. Do not feed treated hulls to livestock. (For control of Peach Twig Borer— Make applications during appearance of the moths in early to late summer. Apply 2 or 3 sprays to trunk from ground to scaffold limbs timed with moth flight.)

APPLES: European Sawfly, Mealybug, Leafhopper, Grasshopper, (European, Red, Two-Spotted, Pacific, Schoenic, Willamette and Clover mites), (For certain mites, such as Two-Spotted and Willamette, repeat application at 7 to 10 day intervals during summer months), Rosy and Green Apple Aphid, Orange Tortrix Moth, (San Jose, Forbes, Parlatone, and Scurfy Scales), Red-banded Leaf Roller, Woolly Apple Aphids: 1-4 pints per 100 gals. Codling Moth, Apple Maggot, Oriental Fruit Moth and Plum Curculio: $\frac{2}{3}$ - 1 pint per 100 gals. Apply at petal fall and every 10-14 days thereafter until control is achieved. Do not apply within 14 days of harvest. Do not apply to susceptible varieties. Application may cause injury to fruit and foliage of Golden Delicious, Johnathan and McIntosh apples, as well as related varieties, such as Cortland, Kendall, Macoun and Malba.

APRICOTS: Peach Twig Borer (Dormant Application) — 1 pint plus dormant oil emulsion or dormant emulsive oil at the dosage recommended for the specific oil product per 100 gals. Mealybug, Mealy Plum Aphid - $\frac{1}{2}$ pint per 100 gals. Codling Moth, Orange Tortrix, Peach Twig Borer - 1 pint per 100 gals. Do not apply within 14 days of harvest. Do not apply until danger of bee poisoning has passed. Do not exceed 700 gals. Dilute spray per acre. (For control of Peach Twig Borer: Make applications during appearance of the moths in early to late summer. Apply 2 or 3 sprays to trunk from ground to scaffold limbs timed with moth flight.) (For control of Codling Moth: Apply at petal fall and every 10 to 14 days thereafter until control is achieved.)

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TORTRIKID. AMORPHIC Plume Moth, Aphids — 1 quart per acre. Do not apply within 7 days of harvest.

AVOCADOS: Tortricid Moths (including Amorbia Moth) — apply 1 to 2½ quarts per acre. Do not apply within 21 days of harvest.

BARLEY, OATS, WHEAT: Aphids, Armyworms, Black Grass Bug, Stink Bugs, Greenbugs, Winter Grain Mites, Thrips, White Spider Mites, Leafhoppers, Cutworms, Grasshoppers, Brown Wheat Mites, Say's Plant Bugs — 1 to 1½ pints per acre. Clinch Bugs, False Chinch Bugs — 1½ pints per acre. Do not apply within 15 days of harvest.

BEANS: Aphids, Armyworms, Leafhopper, Leaf Roller, Lima Pod Borer, Mexican Bean Beetle, Stink Bugs, Thrips — apply 1 pint per acre in sufficient water for thorough coverage. Leaf miner — 1 to 1½ pints per acre. Do not apply within 15 days of harvest. Garden Symphylan — 5 quarts per acre. Spray broadcast on soil before planting and work into upper 3 inches by discing or rototilling. Pre-plant soil treatment only. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams. Repeat application at 7 to 10 day intervals until controlled. Do not apply within 15 days of harvest.

BEETS, TABLE: Aphids, Blister Beetles, Sugar Beet Webworm — 1 pint per acre. Do not apply within 21 days of harvest if tops are to be used for food or feed, within 15 days of harvest if tops are to be discarded. Wireworms — 1 gallon per acre. Spray broadcast on soil before planting and work into upper 8 inches by discing or rototilling. Pre-plant soil treatment only. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

BLACKBERRY, BOYSENBERRY, DEWBERRY, LOGANBERRY, RASPBERRY: Aphids — 1 pint per acre. Raspberry Crown Borer — 1 quart per acre. Do not apply within 15 days of harvest.

BLUEBERRIES: Maggots, Thrips — 1 pint per acre. Do not apply within 14 days of harvest.

BROCCOLI: Aphids, Vegetable Weevil, Cabbage Looper, Diamond Back Moth Larvae, Imported Cabbage Worm, Climbing Cutworms, Armyworms — 1 pint per acre. Do not apply to Broccoli within 7 days of harvest.

BRUSSEL SPROUTS: Aphids, Climbing Cutworms, Thrips, Vegetable Weevil, Cabbage Looper, Diamond Back Moth Larvae, Imported Cabbage Worm, Armyworms — 1 quart per acre. Do not apply within 21 days of harvest.

CABBAGE, CAULIFLOWER: Aphids, Vegetable Weevil, Cabbage Looper, Diamond Back Moth Larvae, Imported Cabbage Worm, Climbing Cutworms, Armyworms — 1 pint per acre. Wireworms, Garden Symphylan — 5 quarts per acre. Spray broadcast soil before planting and work into upper 6 to 9 inches by discing or rototilling. Pre-plant soil treatment only. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams. Do not apply to Cabbage within 10 days of harvest; to Cauliflower within 7 days of harvest. For application to cabbage grown for seed only to control cabbage seed pod weevils, use 1 quart per acre.

CARROTS: Rusty Banded Aphid, Petrobia Mite, Vegetable Weevil — 1 pint per acre. Tulip Bulb Aphid — 1½ pint per acre. Do not apply within 15 days of harvest. Do not use treated carrot tops for food or feed. Wireworms, Garden Symphylan — 5 quarts per acre. Spray broadcast on soil before planting and work into upper 6 to 9 inches by discing or rototilling. Pre-plant soil treatment only. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

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CELERY: Leafminer and Whiteflies — 1½ pints per acre. Aphids, Climbing Cutworms, Cabbage Loopers, Leafhoppers, Celery Leafminers, Spider Mites — 1 pint per acre. Symphylans, Wireworms — 5 quarts per acre. Do not apply within 21 days of harvest. Spray broadcast on soil before planting and work into upper 6 to 9 inches by discing or rototilling. Pre-plant soil treatment only. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

CHERRIES: Brown Apricot Scale, Aphids, San Jose Scale, Black Scale, Black Cherry, Aphid Eggs, Brown Mite — (Dormant Application) 1 pint plus dormant oil emulsion or dormant emulsive oil at the dosage recommended for the specific oil product per 100 gals. Orange Tortrix, Leaf Miner, Mites, Casebearers (during growing season), Red Spider Mites, Black Cherry Aphid — ½ pint per 100 gals. Cherry Fruitworm, Bud Moth, Cankerworm, San Jose Crawlers — ¾ pint per 100 gals. of water. Plum Curculio, Oriental Fruit Moth (apply at petal fall and every 10 to 14 days thereafter until control is achieved) — use ¾ pint per 100 gals. of water. For San Jose Scale Crawlers, apply after emergence. Fruit Fly — ½ to ¾ pint per 100 gallons of water. Apply within 5 days after first fly emerges and repeat every 10 days. Repeat immediately after every rain. For additional protection use the same dosage in a post-harvest spray. Shot-hole Borer (following petal fall and in late summer) — 2/5 to ½ pint per 100 gals. of water. Do not apply within 14 days of harvest. Do not exceed 400 gals. Dilute spray per acre.

CITRUS (ORANGES, LEMONS, GRAPEFRUIT): Purple, Florida Red, Cottony-cushion and Snow Scales and Mealy bug — Use ¾ pint per 100 gallons of water between June and September or use 6 ozs. per 100 gallons of water in two sprays, the first in the spring and a second between June and September. Do not apply more than 4 quarts of this material per acre. Do not apply within 14 days of harvest.

COLLARDS: Armyworms, Climbing Cutworms, Diamond-Back Moth, Thrips, Aphid, Cabbage Looper, Imported Cabbage Worm, Vegetable Weevil — 1 pint per acre. Do not apply within 10 days of harvest.

CORN: For control of European corn borers, in the whorl use 1 pint per acre. Apply the first spray when 75% of the corn plants show "shot hole" feeding and follow with two additional sprays at 5 to 7 day intervals. Use sufficient water per acre to provide complete coverage and be certain whorls of plant are well treated. Consult your State Agricultural Experiment Station for proper timing of treatments. For corn leaf aphids, use ½ pint per acre. For fall armyworms, corn rootworm adults, armyworms, cutworms, budworm, mites, grasshoppers and Japanese beetles, use 1 pint per acre. For corn earworms use 1 pint per acre. Apply to silks as soon as they appear. Make 3 to 4 applications at 2 to 3 day intervals as infestation warrants. Reapply immediately after rain. To control stink bugs and spider mites, use 1 pint per acre. To control chinch bugs, use 1½ pints per acre. Do not apply within 12 days of harvest.

COTTON: To control Aphids, Mites, Cotton Leaf Worm, Cotton Fleahoppers, Garden Webworms and Thrips — ½ pint per acre. For some Spider Mites — ¼ to ½ pint per acre. For Cabbage Loopers, Boll Weevil — 1 pint per acre. For Stink Bugs — 1 to 1½ pint per acre. For Salt Marsh Caterpillars — 1 to 2 pints per acre. For Bollworms, Cotton Leaf Perforators, Lygus Bugs, False Chinch Bugs, Serpentine Leaf Miners and Southern Garden Leafhoppers — 2 pints per acre. Use enough water for complete coverage. Make first application when insects appear and repeat at 7 day intervals if required. If desired, this information may be combined with other insecticides in a complete cotton spray program. Workers entering fields within 24 hours after application should wear protective clothing. Do not handpick or harvest within 7 days.

CRANBERRY: Sparganothis Fruitworm, Girdler Tipworms, Cranberry, Fruitworm, Fireworm, Leafhopper — 1½ pints per acre. Do not apply within 15 days of harvest.

CUCUMBERS: Aphids, Cucumber Beetles, Flea Beetles, Stink Bugs, Vine Borer, Leafhoppers, Thrips, Spider Mites, Squash Bug, Leaf Miner — 1 pint per acre. Do not apply within 15 days of harvest. Do not apply before vining.

CURRENT: Aphids — Use ¼ to ½ pint as leaf buds open in spring. Red Spider Mites — Use ½ to 1 pint before bloom. Do not apply within 30 days of harvest.

EGGPLANT: Aphids, leaf miners, mites, thrips, red spider mites, whiteflies — 1 pt. per acre in sufficient water for thorough coverage. Do not apply within 15 days of harvest.

ENDIVE, ESCAROLE: Aphids, leafhopper — 1 pint per acre. Do not apply within 21 days of harvest.

FIGS: Fig Scale Crawlers — 1 to 2½ pints per acre as a full coverage spray. Do not apply within 30 days of harvest.

GARLIC: Leaf Miner, Thrips, Petrobia Mite — 1 pint per acre. Do not apply within 15 days of harvest.

GRAPES: Hoplia Beetle, Leafroller, Thrips, Mites, Berry Moths, Grape Mealy Bug — (Dormant Application) 1½ to 3 pints plus 2 gals. dormant oil emulsion per 100 gals. per acre. Apply 100 to 150 gals. spray solution per acre by ground sprayer. (Summer application) 1 pint per 100 gals. per acre. Use 300 gals. spray solution per acre by ground sprayer in late June or early July. Do not apply within 15 days of harvest.

HOPS: Aphids, Spider Mites — 1 quart per acre. Do not apply within 15 days of harvest.

KALE: Aphids, Armyworms, Climbing Cutworms, Diamond-Back Moth, Thrips, Vegetable Weevil, Cabbage Looper, Imported Cabbage Worm — 1 pint per acre. Do not apply within 10 days of harvest.

KOHLRABI: Armyworms, Climbing Cutworm, Diamond-Back Moth, Thrips, Vegetable Weevil, Aphids, Cabbage Looper, Imported Cabbage Worm — 1 pint per acre. Do not apply within 7 days of harvest.

LETTUCE (Head, Bibb, Leaf): Leaf miners — 1 pint plus 5 lbs. of brown sugar per acre. Aphids, Banded cucumber beetle, leafhopper, lygus bugs — 1 pint per acre. Do not apply within 7 days of harvest for head lettuce or within 21 days of harvest for bibb and leaf lettuce.

LETTUCE (Heart): Garden Symphylan — 5 quarts per acre. Spray broadcast on soil surface and work into top 6 to 9 inches by disking or rototilling. Pre-plant soil application only. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

MELONS: (CANTALOPE, MUSKMELON, HONEYDEW, WATER-MELONS): Stink Bugs, Vine Borer, Aphids, Thrips, Spider Mites, Cucumber Beetle, Leafhoppers — 1 pint per acre. Do not apply within 7 days of harvest.

MUSTARD: Aphids, Cabbage Looper, Climbing Cutworms, Diamond-Back Moth, imported Cabbage Worm, Vegetable Weevil, Armyworms, and Thrips — Apply ½ to 1 pint per acre in sufficient water for thorough coverage. Do not apply within 14 days of harvest. For cabbage loopers and leafminers, apply at a rate of 1 pint per acre.

ORCHIDS: Aphids, Leafminer, Stink Bug — 1 pint per acre. Do not apply within 21 days of harvest:

OLIVES: Parlatoria Scale, Black Scale — 1 to 1 1/4 gallons per acre as a full coverage spray. Do not apply after August 1.

ONIONS: Leafminer, Thrips, Petiole Mite — 1 1/2 pints per acre. Do not apply within 15 days of harvest.

ORNAMENTALS (Outdoor Only): Aphids, Whitefly, Spider Mites, Leafhoppers, Thrips, Lacebug, Bagworm, Cottony-Cushion Scale — Use 1 pint with 3 gals. of water and spray until runoff. For Spider Mites and Leafhoppers repeat in 7 to 10 days. Juniper Webworm, Lecanium Scale — Use 1 1/2 pints with 3 gallons of water and spray until runoff. Mealybugs, Scales, Leaf Tiers — Use 1 1/2 pints with 3 gals. of water and spray until runoff against young or crawler stages. Repeat in 3 weeks, if necessary. Spray foliage until thoroughly covered. **CHRISTMAS TREES** — To control aphids and mites, use 1/2 pint per 100 gallons of water.

PEACHES, NECTARINES: San Jose Scale, Brown Apricot Scale, Walnut Scale, Parlatoria Scale, Peach Twig Borer—(Dormant Application) 1 pint plus dormant oil emulsion or dormant emulsive oil at the dosage recommended for the specific oil product per 100 gals. Peach Twig Borer, Oriental Fruit Moth — 1 pint per 100 gals. (For control of Peach Twig Borer: Make applications during appearance of the moths in early to late summer. Apply 2 or 3 sprays to trunk from ground to scaffold limbs timed with moth flight.) (For control of Oriental Fruit Moth: Apply at petal fall and every 10 to 14 days thereafter until control is achieved.) Thrips (Nectarines only) — 1/2 pint per 100 gals. Do not apply more than 5 lbs. actual parathion per acre between January 1 and harvest. In California do not apply more than once after bloom; do not exceed 250 gals. diluted spray per acre.

PEACHES, NECTARINES — (AREAS OTHER THAN CALIFORNIA): Fruit Tree Leaf Roller, Cottony Peach Scale, Green Peach Aphid, Spider Mites, Shot-hole Borer (apply during peak of adult beetle activity), Red Banded Leaf Roller, Plum Curculio, Oriental Fruit Moth, Peach Tree Borer, Cat-facing insects — 1/2 pint per 100 gallons of water. (For control of Plum Curculio and Oriental Fruit Moth: Apply at petal fall and every 10 to 14 days thereafter until control is achieved.) Lecanium Scale and San Jose Scale (Apply after all eggs have hatched) — 4/5 pint per 100 gallons of water. Do not apply more than 5 pints of product per acre per year. Do not apply within 14 days of harvest.

PEARS: Blister Mite — 2/3 pint per 100 gallons of water in pre-blossom spray. Pear Psylla — 1/2 pint per 100 gallons of water in pre-blossom or post-blossom sprays. Codling moth, Mealy Bug, Woolly Aphid and certain Spider Mites—dosages listed under apples. (For control of Codling Moth: Apply at petal fall and every 10 to 14 days thereafter until control is achieved.) Injury may occur on Bosc variety. Do not apply within 14 days of harvest.

PEAS, BLACK EYE: Leafminer, Aphids — 1 pint per acre. Do not apply within 15 days of harvest.

PEAS, GARDEN: Thrips, Climbing Cutworm, Armyworms, Leafminers, Aphids, Pea Weevil — 1 pint per acre. Do not apply within 10 days of harvest. Do not use for feed or forage.

PEANUTS: To control fall armyworms and red necked peanutworms, use 1 pint per acre. To control lesser cornstalk borers, use 1 pint per acre. Direct spray to soil surface and base of plants. Do not apply within 15 days of harvest.

PEPPERS: Aphids, flea beetles, leaf miners, thrips — 1 pint per acre. Do not apply within 15 days of harvest.

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PLUMS, PRUNES: Parlatoria Scale, San Jose Scale, Brown Apricot Scale, Mealy Plum Aphid Eggs, Leaf Curl Aphid Eggs — (Dormant Application) — 1 pint plus dormant oil emulsion or dormant emulsive oil at the dosage recommended for the specific oil product per 100 gals. Fruit Tree Leafroller, Peach Twig Borer, Codling Moth — 1 pint per 100 gals. of water. (For control of Peach Twig Borer: Make application during appearance of the moths in early to late summer. Apply 2 or 3 sprays a trunk from ground to scaffold limbs timed with moth flight.) (For control of Codling Moth: Apply at petal fall and every 10 to 14 days thereafter until control is achieved.) Bud Moth, Orange Tortrix — ½ pint per 100 gals. of water. Tussock Moth — ¾ pint per 100 gals. of water. Do not apply within 14 days of harvest. Do not apply more than 8 pints per acre.

POTATO: Aphids, Colorado Potato Beetle, Flea Beetle, Grasshoppers, Whiteflies, Plant Bugs, Blister Beetles, Vegetable Weevil, Leafhoppers, Leaf Miners, Stink Bugs, Thrips, Armyworms, Banded Cucumber Beetle, Looper, Leaf-Footed Plant Bugs — 1 pint per acre. Russet Mite and Potato Psylla — 2 pints per acre. Do not apply within 5 days of harvest. Garden Symphylan — 5 quarts per acre. Broadcast spray on soil surface and work into top 6 to 9 inches by discing or rototilling. Pre-plant soil application only. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

PUMPKIN: Aphids, Cucumber Beetle, Squash Bug — 1 pint per acre. Do not apply within 10 days of harvest.

RADISHES: Aphids, Leaf Miners, Thrips — 1 pint per acre. Do not apply within 15 days of harvest.

RICE: Tadpole Shrimp, Rice Leafminer — 3.2 Fl. oz. per acre. Do not apply within 1 day of harvest. Shrimp, crabs and crawfish may be killed. Do not apply where they are important resources. Do not apply within 14 days before or after an application of propanil.

RUTABAGAS: Aphids, Armyworms, Climbing Cutworms, Diamond-Back Moth, Vegetable Weevil, Cabbage Looper, Imported Cabbage Worm — 1 pint per acre. Do not apply within 7 days of harvest.

SAFFLOWER: Aphids, Lygus Bugs, Grasshoppers, Thrips — 1 pint per acre. Do not apply after flowering.

SORGHUM: Sorghum midge, apply 1 to 2 pts. per acre, 2 applications 3 to 5 days apart when approximately 90% of the heads have completely emerged from the boot or not later than start of blooming. Corn leaf aphids and mites, ½ pint per acre. Sorghum web worms, fall armyworms, armyworms, and corn ear worms, use ¾ to 1 pint per acre. Chinch bugs, use 1½ pints per acre. Leaf injury may occur on some hybrid varieties of sorghum. Spray a few rows a week or so before booting to least effects on plants. Do not treat within 12 days of harvest or cutting for storage.

SOYBEANS: To control webworms use ½ pint per acre. To control velvet bean caterpillars, green cloverworms, two-spotted mites and stink bugs, use 1 pint per acre. To control corn earworms and fall armyworms, use 1½ pints per acre. To control white grub and wireworms broadcast 1 gallon per acre just prior to planting and thoroughly incorporate into upper 4 to 6 inches of soil. Do not apply more than two applications per growing season. Do not apply within 20 days of grazing or harvest.

SPINACH: Cabbage Looper, Vegetable Weevils, Flea Beetles, Seed Corn Maggot on crown, Aphids, Crown Mite — 1 pint per acre. Do not apply within 14 days of harvest.

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SQUASH, SUMMER, WINTER: Cucumber beetle, Flea beetles, Leafhoppers, Thrips, Aphids, Squash Bugs, Leaf Miner — 1 pint per acre. Do not apply within 15 days of harvest. Do not apply before plants start to vine.

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STRAWBERRY: Flea Beetles, field crickets, flower thrips, pamearas, red spider mites, Aphids, Lygus Bugs, Potato Leafhopper, Strawberry Leaf Roller, Strawberry Root Weevil, White Flies — 1 pint per acre. Do not apply within 15 days of harvest.

SUGAR BEETS: Alfalfa Looper, Armyworms, Cutworms, Grasshoppers, Stink Bugs, Flea Beetles, Sugarbeet Webworm, Aphids, Leaf Miner, Lygus Bugs, Blister Beetles, Beet Leafhopper — 1 to 1½ pints per acre. Sugar Beet Crown Borers, False Celery Leaf Tier — 1½ pints per acre. Do not apply within 15 days of harvest. Do not feed treated tops to dairy animals or animals being finished for slaughter. Garden Symphylan—5 quarts per acre. Spray broadcast on soil before planting and work into upper 6 inches by discing or rototilling. Pre-plant soil treatment only. To control white grubs and wireworms, broadcast 1 gallon per acre just prior to planting and thoroughly incorporate into upper 4 to 6 inches of soil. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

SWEET POTATOE: To control wireworms, use 2 quarts in 10 to 12 inch band in open furrow at time of planting. Do not apply within 13 days of harvest.

SWEET POTATOES: Aphids, Leafminers — 1 pint per acre. Do not apply within 15 days of harvest.

SWISS CHARD: Aphids, Leafminers, Crown Mite, Vegetable Weevil, Seed Corn Maggot in Crowns — 1 pint per acre. Do not apply within 21 days of harvest.

TOBACCO: For control of aphids, stink bugs and tobacco suckflies, use ½ pint per acre. Do not apply within 5 days of priming or 15 days of cutting. Avoid plant juices coming in contact with the skin or other parts of the body of those who are engaged in cutting the crop. Do not apply within 5 days of harvest.

TOMATO: Aphids, Banded Cucumber Beetle, Loopers, Leaf Miners, Spider Mites, Russet Mite, Stink Bugs, Colorado Potato Beetle, Flea Beetle, Leafhoppers, Grasshoppers, White flies, Thrips, Potato Psylla, Plant Bugs, Blister Beetles — 1 pint per acre. Vegetable Weevil, Armyworms — 2 pints per acre. Do not apply within 10 days of harvest.

TURNIPS: Aphids, Armyworms, Climbing Cutworm, Diamond-Back Moth, Thrips, Cabbage Looper, Imported Cabbage Worm, Vegetable Weevil — 1 pint per acre. Do not apply within 10 days of harvest.

VETCH: Aphids, armyworms, blister beetles, grasshoppers — Apply ½ to ¾ pint per acre in sufficient water for thorough coverage at first sign of infestation. Do not apply within 15 days of harvest or forage use.

WALNUTS: Frosted Scale, European, Fruit, Lecanium, California Scale—(Dormant Application) 2½ pints plus dormant oil emulsion at the rate recommended for the specific oil product in 100 to 200 gals. water per acre, applied by air blast sprayer; (Spring-Summer) 1 to 1½ pints plus summer oil emulsion at the dosage recommended for the specific oil product in 200 to 800 gals. water per acre applied by air blast sprayer. Putnam Scale, San Jose Scale—(Dormant Application) 2½ pints plus 8 gals. dormant oil emulsion in 200 gals. water per acre applied by air blast sprayer. Do not apply after husks open.

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CONDITIONS OF SALE - LIMITED WARRANTY
AND LIMITATIONS OF LIABILITY AND REMEDIES

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Helena or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. Helena warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of Helena. Helena makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warrant shall be implied by law.

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