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PM 12

**METAL CONTAINERS —**  
**1-GALLON CANS —** Pour 1 pt. of water into empty can and add 1 1/2 teaspoons of detergent. Rotate can carefully to wet all inner surfaces with the solution. Bury the solution at least 18 inches deep in an isolated location away from water supplies. Punch holes in top and bottom of cans, crush can and bury deeply in an isolated location.  
**3-GALLON, 30-GALLON and 55-GALLOID DRUMS —** Pour the knowing mixture into empty containers.  
**1-GALLON DRUMS —** 2 1/2 cups water, 1 cup caustic soda (household lye), 2 tablespoons of detergent.  
**30-GALLON DRUMS —** 3 gallons water, 1 lb caustic soda (household lye), 1 cup detergent.  
**55-GALLON DRUMS —** 5 gallons water, 2 lb caustic soda (household lye), 1 cup detergent.

Rotate container until all inner surfaces are thoroughly wet. Bury the used solution at least 18 inches deep in an isolated area away from water supplies.  
**CAUTION: Handle caustic soda (household lye) with extreme care. Do not get on skin, in eyes or on clothing. Read and carefully follow the precautions on package. Run the hose in top and bottom of container, crush container. Bury deeply in an isolated area.**

**IF THE ABOVE RINSE METHOD CANNOT BE USED**  
 Punch holes in TOP of container and burn out fire and paint has been completely burned off container. Extreme care should be exercised to insure that containers are completely empty and that persons stay away from smoke and fumes. Do not attempt to burn more than 5 containers at one time.

**DIRECTIONS FOR MIXING AND SPRAYING**  
 Mix in water with agitation, agitate until spraying. Apply to row and field crops in 3 to 10 gal. applications only use 20 to 100 gal. of water per acre by ground spraying or 1 to 3 gal. of water per gallon of use 5 to 10 gal. of water by airplane.

**COMPATIBILITY —** Avoid combinations containing highly abrasive materials such as lime, sulfur, or insecticides. Abusive compounds will reduce the effectiveness of Parathion.

**ALFALFA, CLOVER, ARMYAIDS, Alfalfa Weevils, Larvae, Webworms —** 1/2 to 1 qt per acre. Do not apply within 15 days of harvest.

**ALMONDS —** In Table Borer, Eucalyptus Scale, Paratona Scale, Little Eggs (Dormant Application) 1 pint plus dormant oil emulsion or dormant emulsion at the dosage recommended for the specific product per 100 gal. Fruit Tree Leafhopper, Tent Caterpillar, Pear Tree Borer, 1/2 qt per 100 gal. Do not apply after 1/2 crop after 1/2 crop. Do not spray per acre. Do not apply within 14 days of harvest. Do not feed treated Alms to livestock. For control of Peach Twig Borer, Make applications during appearance of the moths in early to late summer. Apply 2 or 3 times to fruit trees, depending on scaffold limbs timed with fruiting.

**APPLES —** European Sawfly, May Apple Leaf Miner, Grasshopper (European), Red Tail Spruce, Pear Tree, San Jose Scale, and Cider Aphids. (For certain insects, such as Two Spotted and Whitetail, repeat applications at 7 to 10 day intervals during summer months). Rusty and Green Apple Aphid, Orange Tortrix Moth (San Jose), Pear Tree Borer, and Scaly Scales. Red Banded Leaf Roll, Woolly Apple Aphid, 1 qt per 100 gal. Codling Moth, Apple Aphid, Green Pear Leafhopper, and Plum Curculio. 1/2 qt per 100 gal. Apply at petal fall and every 10 to 14 days thereafter until control is achieved. Do not apply within 14 days of harvest. Do not apply to sensitive varieties. Application may cause injury to fruit and to age of Golden Delicious, Jonathan and McIntosh apples, as well as related varieties such as Fuji and Red Delicious and Malus.

**APRICOTS —** Pear Tree Borer, Peach Tree Borer, 1 pint plus dormant oil emulsion or dormant emulsion at the dosage recommended for the specific product per 100 gal. Pear Tree Borer, Pear Tree Borer, 1/2 qt per 100 gal. Codling Moth, Orange Tortrix Moth, Pear Tree Borer, 1 pint per 100 gal. Do not apply within 14 days of harvest. Do not apply until danger of leaf curling has passed. Do not exceed 100 gal. Dilute spray per acre to a minimum of 10 gal. per acre. Make applications during appearance of the moths in early to late summer. Apply 2 or 3 times to fruit trees, depending on scaffold limbs timed with fruiting. For control of Codling Moth, Apply at petal fall and every 10 to 14 days thereafter until control is achieved.

**ARTICHOKE —** Armyworm, Pear Tree Moth, Aphid. 1/2 qt per acre. Do not apply within 14 days of harvest.

**AVOCADOS —** Tortrix Moth, Pear Tree Borer, and Moth. 1/2 to 1 qt per acre. Do not apply within 14 days of harvest.

**BARLEY, OATS, WHEAT —** Armyworm, Black Grass Bug, Stem Borer, Greenbug, Yellow Grasshopper, Big Horned Beetle, Wheat Leafhopper, Cuckoo Fly, Grasshopper, Brown Hairy Mites, Say's Plant Bugs. 1/2 to 1 qt per acre. Control Bugs, False Chinch Bugs. 1/2 qt per acre. Do not apply within 15 days of harvest.

**BEANS —** Aphids, Armyworms, Leafhopper, Pear Tree Moth, Luna Moth Borer, Mexican Bean Beetle, Stem Borer, 1/2 qt per 100 gal. Do not apply until danger of leaf curling has passed. Do not exceed 100 gal. Dilute spray per acre to a minimum of 10 gal. per acre. Make applications during appearance of the moths in early to late summer. Apply 2 or 3 times to fruit trees, depending on scaffold limbs timed with fruiting. For control of Codling Moth, Apply at petal fall and every 10 to 14 days thereafter until control is achieved.

**BEANS (continued) —** Stem Borer, 1/2 qt per 100 gal. Do not apply within 14 days of harvest. Do not apply until danger of leaf curling has passed. Do not exceed 100 gal. Dilute spray per acre to a minimum of 10 gal. per acre. Make applications during appearance of the moths in early to late summer. Apply 2 or 3 times to fruit trees, depending on scaffold limbs timed with fruiting. For control of Codling Moth, Apply at petal fall and every 10 to 14 days thereafter until control is achieved.

**BEANS (continued) —** Stem Borer, 1/2 qt per 100 gal. Do not apply within 14 days of harvest. Do not apply until danger of leaf curling has passed. Do not exceed 100 gal. Dilute spray per acre to a minimum of 10 gal. per acre. Make applications during appearance of the moths in early to late summer. Apply 2 or 3 times to fruit trees, depending on scaffold limbs timed with fruiting. For control of Codling Moth, Apply at petal fall and every 10 to 14 days thereafter until control is achieved.

**BEANS (continued) —** Stem Borer, 1/2 qt per 100 gal. Do not apply within 14 days of harvest. Do not apply until danger of leaf curling has passed. Do not exceed 100 gal. Dilute spray per acre to a minimum of 10 gal. per acre. Make applications during appearance of the moths in early to late summer. Apply 2 or 3 times to fruit trees, depending on scaffold limbs timed with fruiting. For control of Codling Moth, Apply at petal fall and every 10 to 14 days thereafter until control is achieved.

**BEANS (continued) —** Stem Borer, 1/2 qt per 100 gal. Do not apply within 14 days of harvest. Do not apply until danger of leaf curling has passed. Do not exceed 100 gal. Dilute spray per acre to a minimum of 10 gal. per acre. Make applications during appearance of the moths in early to late summer. Apply 2 or 3 times to fruit trees, depending on scaffold limbs timed with fruiting. For control of Codling Moth, Apply at petal fall and every 10 to 14 days thereafter until control is achieved.

**BEANS (continued) —** Stem Borer, 1/2 qt per 100 gal. Do not apply within 14 days of harvest. Do not apply until danger of leaf curling has passed. Do not exceed 100 gal. Dilute spray per acre to a minimum of 10 gal. per acre. Make applications during appearance of the moths in early to late summer. Apply 2 or 3 times to fruit trees, depending on scaffold limbs timed with fruiting. For control of Codling Moth, Apply at petal fall and every 10 to 14 days thereafter until control is achieved.

**BEETS, TABLE —** Aphid, Pear Tree Borer, 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 6 inches by disking or rototilling. Pre-plant soil treatment only. Keep at persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

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

**BLUEBERRIES —** Migrants, Trips. 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 Cutworm, Armyworms. 1 pint per acre. Do not apply within 7 days of harvest.

**BRUSSEL SPROUTS —** Aphids, Climbing Cutworms, Trips, 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. Spray broadcast soil before planting and work into upper 6 to 9 inches by disking or rototilling. Pre-plant soil treatment only. Keep at persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams. Do not apply to cabbage grown for seed or to control cabbage seed pod weevils, use 1 quart per acre.

**CARROTS —** Rusty Banded Aphid, Petiole Mite, Vegetable Weevil. 1 pint per acre. 1/2 qt 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 disking or rototilling. Pre-plant soil treatment only. Keep at persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

**CELERY —** Leaf miner and Whiteflies. 1/2 pints per acre. Aphids, Climbing Cutworms, Cabbage Looper, Leafhoppers, Celery Leaf Miners, Spider Mites. 1 qt per acre. Symphylan 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 disking or rototilling. Pre-plant soil treatment only. Keep at persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

**CHERRIES —** Brown Acedid, Scale, Aphids, San Jose Scale, Black Scale, Pear Tree Borer, Pear Tree Borer, 1/2 qt per 100 gal. Do not apply after 1/2 crop after 1/2 crop. Do not spray per acre. Do not apply within 14 days of harvest. Do not feed treated Alms to livestock. For control of Peach Twig Borer, Make applications during appearance of the moths in early to late summer. Apply 2 or 3 times to fruit trees, depending on scaffold limbs timed with fruiting.

**CITRUS (ORANGES, LEMONS, GRAPEFRUIT) —** Purple Florida Red, Citrus Cuckoo, and Spine Scales and Weevil Bug. 1/2 qt per 100 gallons of water between June and September or use 6 oz 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 oz per 100 gal of water per acre. Do not apply within 14 days of harvest. Do not exceed 100 gal. Dilute spray per acre.

**CITRUS (ORANGES, LEMONS, GRAPEFRUIT) (continued) —** Purple Florida Red, Citrus Cuckoo, and Spine Scales and Weevil Bug. 1/2 qt per 100 gallons of water between June and September or use 6 oz 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 oz per 100 gal of water per acre. Do not apply within 14 days of harvest. Do not exceed 100 gal. Dilute spray per acre.

**CITRUS (ORANGES, LEMONS, GRAPEFRUIT) (continued) —** Purple Florida Red, Citrus Cuckoo, and Spine Scales and Weevil Bug. 1/2 qt per 100 gallons of water between June and September or use 6 oz 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 oz per 100 gal of water per acre. Do not apply within 14 days of harvest. Do not exceed 100 gal. Dilute spray per acre.

**COLLARDS —** Armyworms, Climbing Cutworms, Diamond Back Moth, Trips, 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 15% of the corn plants show symptoms of feeding and follow with two additional sprays at 5 to 7 day intervals. Use sufficient water per acre to provide complete coverage and contact with the plant. If not treated, consult your State Agricultural Experiment Station for procedures of treatments. For corn leaf aphids use 1/2 qt per acre. For fall armyworms, corn rootworm adults, armyworms, cutworms, European mites, grasshoppers and Japanese beetles, use 1 qt per acre. For corn earworms use 1 pint per acre. Apply to soil 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 chinch bugs and spider mites use 1 pint per acre. To control chinch bugs use 1/2 pints per acre. Do not apply within 12 days of harvest.

**COTTON —** Control Aphids, Mites, Cotton Leaf Worm, Cotton Fleahoppers, Garden Webworms and Trips. 1/2 qt per acre. For stem borer mites use 1/2 to 1 qt per acre. For Cabbage Looper's, Boll Weevil — 1 qt per acre. For Stink Bugs — 1 to 1 1/2 qt per acre. For Saw Marsh Caterpillars — 1 to 2 pints per acre. For Brown Moths, Cotton Leafhoppers, Ligus Bugs, False Chinch Bugs, Spiny Legged Leaf Miners and South of Garden Leafhoppers — 2 quarts 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 hand-pick of harvest within 7 days.

**RESTRICTED USE PESTICIDE**  
 FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION AND ONLY THOSE WHOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

**STOP-READ LABEL BEFORE USING!**



**Parathion 4-E**

Emulsifiable Liquid — An Agricultural Insecticide

**ACTIVE INGREDIENTS** (By Weight)

Parathion (O,O-Diethyl O-p-nitrophenyl phosphorothioate)	44.10%
Related Compounds	2.10%
Xylene	49.10%
INERT INGREDIENTS	4.00%
<b>TOTAL</b>	<b>100.00%</b>

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

**PRECAUTION**  
**AT USUARIO: SI usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.**  
**(TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)**

SN-011080M  
 E.P.A. REG. NO. 5905-82      EPA Est. No. \_\_\_\_\_

SN1-11068-5M  
**NOT DOCUMENT AVAILABLE**

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# Precautionary Statements Hazards to Humans and Domestic Animals



## DANGER—POISON

### 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 anything by mouth to an unconscious person. Get medical attention.



### POISONOUS BY SKIN CONTACT

Poisonous if touched by hands or soiled 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 its surfaces and eyes. Clothing wet with 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.

Call a doctor (physician) or a 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 or blunt object. 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

**ANTIDOTE**—Administer atropine sulfate in large doses. **TWO TO FOUR mg** intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 15 to 30 minute intervals until signs of atropinization appear. 2-PAM chloride is also indicated 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 least one of pulmonary edema, the patient should be given 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.** Treat symptomatically.

## Environmental Hazards

This pesticide is toxic to fish, shrimp, crabs, birds and other wildlife. Birds and other wildlife in treated areas may be killed. Keep out of lakes, streams, or ponds. Avoid marshes and estuaries. Shrimp and crabs may be killed at application rates recommended on this label. Do not apply where these are important resources. Do not apply where runoff is likely to occur. Do not apply to water used for irrigation, recreational or domestic purposes. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on this label.

This pesticide is highly toxic to bees exposed to direct treatment or residues on crops. Protective information may be obtained from your Cooperative Agricultural Extension Service.

## Physical and Chemical Hazards

**DO NOT USE, POUR, SPILL, OR STORE NEAR HEAT OR OPEN FLAME.**

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

## Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Workers entering treated fields within 48 hours must wear protective clothing.

### POST TREATED AREA

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

**READ ENTIRE LABEL**—USE STRICTLY IN ACCORDANCE WITH DANGER STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

**KEEP PESTICIDE IN ORIGINAL CONTAINER.**  
**USE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE EQUIPMENT AND CLOTHING:**

- (1) Wear water-proof pants, coat, hat, rubber boots or rubber overboots.
- (2) Wear safety goggles.
- (3) Wear a pesticide respirator properly approved by the Mining Enforcement and Safety Administration formerly the U.S. Bureau of Mines and by the National Institute for Occupational Safety and Health under the provisions of 30CFR Part 11.
- (4) Wear heavy duty, natural rubber gloves.

### WORK SAFETY RULES

Keep all unprotected persons and children away from treated area or where there is danger of drift.

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away. Call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to parathion and describe his condition. After first aid, get first aid treatment (see Section) and if a doctor cannot come, take victim to clinic or hospital.

**IMPORTANT!** Before removing gloves, wash them with soap and water. Always wash hands, face and arms with soap and water before smoking, eating or drinking.

**AFTER USE**—Take off all work clothes and shoes. Shower, using soap and water. Wear only clean clothes when leaving job. Do not wear contaminated clothing. Wash protective clothing and protective equipment with soap and water after each use. Respirator should be cleaned and filter replaced according to instructions included with respirator.

## Storage and Disposal

Do not use or store in or around the home. Keep out of reach of children and domestic animals. Do not store near food or feed products.

### FOR ALL EMPTY CONTAINERS

**DO NOT** re-use the container. Completely empty the contents and bury unused chemical at least 18 inches deep in an isolated location away from water supplies.

## METAL CONTAINERS—

**1-GALLON CANS**—Pour 1 pt. of water into empty can and add 1 tablespoonful household detergent. Rotate can carefully to wet all inner surfaces with the solution. Burystrike solution at least 18 inches deep in an isolated location away from water supply. Punch holes in top and bottom of cans, crush can, and bury it deeply in an isolated location.

**3-GALLON, 30-GALLON AND 55-GALLOON DRUMS**—Pour the following mixture into empty container.

**1-GALLON DRUMS**—2 qt. water, 1 cupper household soda (household type), 2 tablespoons of detergent.

**30-GALLON DRUMS**—3 gallons water, 1 1/2 cups caustic soda (household type), 1 cup detergent.

**55-GALLON DRUMS**—5 gallons water, 2 1/2 cups caustic soda (household type), 1 cup detergent.

Rotate container until all inner surfaces are thoroughly wet. Bury the rinse solution at least 18 inches deep in an isolated area away from water supply.

**CAUTION**—Handle caustic soda (household type) with extreme care. Do not get on skin, in eyes or on clothing. Rinse and carefully flush the precautions on package. Punch holes in top and bottom of container, crush container. Bury deeply in an isolated area.

### IF THE ABOVE RINSE METHOD CAN NOT BE USED

Punch holes in TOP of container and burn in hot fire until top rim has been completely burned off container. Extreme care should be exercised to insure that containers are completely empty and that personnel stay well away from smoke and fumes. Do not attempt to burn more than 5 containers at one time.

## DIRECTIONS FOR MIXING AND SPRAYING

Mix in water with agitation. Agitate while spraying. Apply to area and treat crops in 3 to 10 gals. (California only use 20 to 100 gals.) of water per acre for ground spraying 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. Analyze compounds with regard to the effectiveness of Parathion.

**ALFALFA CLOVER** Armyworms, Alfalfa Weevil Larvae, Webworms — 1 to 2 qt. per acre. Do not apply within 15 days of harvest.

**ALMONDS** Peach Tag Borer, San Jose Scale, Paratara Scale, Mite Eggs — (Dormant Application) 1 pint plus dormant or emulsion or dormant emulsion oil at the dosage recommended for the specific oil product per 100 gals. Fruit tree Leafroller, Tent Caterpillar, Peach Tag Borer — 4 pints per 100 gals. for ground spraying. Do not exceed 400 gals. Dilute spray for aerial use. Do not apply within 14 days of harvest. Do not feed treated nuts to livestock. (For control of Peach Tag Borer—Make sprays during appearance of the moths in early to late summer. Apply 2 or 3 sprays to trunk from ground to scaffold limbs toward mid flight.)

**APPLES** European Sawfly, Mealybug, Leafhopper, Grasshopper, European Red Tip Spotted Pacific Sawfly, Whitefly and Clover Weevil. (For certain mites, such as Two Spotted and Wallemite, repeat application at 7 to 10 day intervals during summer months.) Rosy and Green Apple Aphid, Orange Tortrix Moth, San Jose Scale, Foxes, Paratara and Scaly Scale, Red Banded Leaf Roller, Woolly Apple Aphid, 4 pints per 100 gals. Cooling Moth, Apple Maggot, Oriental Fruit Moth and Plum Curculio Fly — 1 pint per 100 gals. Apply 21 petals and every 10 to 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, Jonathan and McIntosh apples, as well as related varieties, such as Cortland, Redand Macoun and Mela.

**APRICOTS** Peach Tag Borer (Dormant Application) — 1 qt. plus dormant or emulsion or dormant emulsion oil at the dosage recommended for the specific oil product per 100 gals. Mealybug, Mealy Plum Aphid — 1/2 pint per 100 gals. Cooling Moth, Orange Tortrix, Peach Tag Borer — 1 pint per 100 gals. Do not apply within 14 days of harvest. Do not apply until danger of leaf rolling has passed. Do not exceed 700 gals. Dilute spray for aerial use. (For control of Peach Tag 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 toward mid flight.) (For control of Cooling Moth—Apply at petal fall and every 10 to 14 days thereafter until control is achieved.)

**ARTICHOKE** Artichoke Plum Moth, Aphids — 1 quart per acre. Do not apply within 15 days of harvest.

**AVOCADOS** Tortred Moths (including Anopla Moth) — apply 1 to 2 1/2 quarts per acre. Do not apply within 10 days of harvest.

**BARLEY OATS, WHEAT** Aphids, Armyworms, Black Grass Bug, Shear Bugs, Greenbugs, Winter Grain Mites, The White Spider Mites, Leafhoppers, Curculionids, Grasshoppers, Brown Wheat Mites, Say's Plant Bugs — 1 to 1 1/2 pints per acre. Chinch Bugs, False Chinch Bugs — 1 1/2 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,rips — apply 1 pint per acre in sufficient water for thorough coverage. Leafroller — 1 to 1 1/2 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 6 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

**BEETS** TABLE Aphis, B. spot Beet, 5 1/2 pints per acre. Do not apply within 21 days to be used for food or feed. Wireworms — broadcast on soil before planting and at the beginning of rototilling. Pre-plant soil 1 persons and animals out of treated area. Contaminate ponds or streams.

**BLACKBERRY, BOYSENBERRY, DEWBERRY** Raspberry Aphis — 1 pint per acre. R. 1 1/2 quarts per acre. Do not apply within 15 days of harvest.

**BLUEBERRIES** Maggots, The ps — 1 pt. within 14 days of harvest.

**BROCCOLI** Aphis, Vegetable Weevil, C. B. Moth, Larvae, Imported Cabbage Worm, Armyworms — 1 pint per acre. Do not apply within 7 days of harvest.

**BRUSSEL SPROUTS** Aphis, Climbing Cutworm, Cabbage Looper, Diamond Back Cabbage Worm, Armyworms — 1 quart within 21 days of harvest.

**CABBAGE** LAULIFLOWER Aphis, Vein Spot, Diamond Back Moth, Larvae, Climbing Cutworms, Armyworms — 1 lb. Garden Symphylan — 5 quarts per acre before planting and work into upper 6 inches by discing. Pre-plant soil treatment only. Keep all persons and animals out of treated area for 48 hours. Do not apply to Cabbage plants within 7 days of cabbage plan for seed only to CC water. Use 1 quart per acre.

**CARROTS** Rusty Banded Aphid, Petroselinid, Turnip B. B. Aphid — 1 qt. within 15 days of harvest. Do top for food or feed. Wireworms, Garden Symphylan, Sprawl, broadcast on soil before planting. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

**CELERY** Leafminer and Whiteflies — 1 Climbing Cutworm, Cabbage Looper, Mites, Spider Mites — 1 pint per acre. 5 1/2 quarts per acre. Do not apply until spray broadcast on soil before planting. 9 inches by discing or rototilling. Pre-plant soil treatment only. Keep all persons and animals out of treated area for 48 hours.

**CHERRIES** Brown Apple C. Scale, Aphis, San Jose Scale, Cherry Aphid, Eggs, B. Apple C. 1 pint plus dormant or emulsion at the dosage recommended for the specific oil product per 100 gals. Orange Tortrix, Leaf Miner, Spring Green, Red Spider M — 1/2 pint per 100 gals. Cherry Fruit Canker, San Jose Scale, Oriental Fruit Moth, Pear and Apple Pear, (For control of Pear and Apple Pear—Apply within 5 days after flowering to buds. Repeat immediately after protection use the same dosage in a Rose Borer (during petal fall) and to 1/2 pint per 100 gals of water. Do not exceed 400 gals. Dilute.

**CITRUS ORANGES, LEMONS, GRAPEF** Citrus Cuckoo and Snow Scale, per 100 gallons of water between June 15 and per 100 gallons of water in late spring and a second between June and more than 4 quarts of this material within 14 days of harvest.

**COLLARDS** Armyworms, Climbing Cutworm, Aphis, Cabbage Looper, Imported Cabbage Worm — 1 pint per acre. Do not apply within 15 days of harvest.

**CORN** For control of European corn 1 pint per acre. Apply the first spray when silks show. Spot blot, feeding and sprays at 5 to 7 day intervals. Use to provide complete coverage and to be well treated. Consult your State Station for proper timing of treatment. 1/2 pint per acre. For fall armyworm, armyworms, cutworms, leafworm mites, beetles, use 1 pint per acre. For corn 1/2 pint per acre to silks as soon as they are out at 2 to 3 day intervals as silks emerge, after rain. To control silk use 1 pint per acre. To control silk per acre. Do not apply within 12 days of harvest.

**COTTON** To control Aphids, Mites, C. Leafhoppers, Garden Webworms and for some Spider Mites — 1 to 1 1/2 pints per acre. For Salt Marsh Caterpillar, For Bollworms, Cotton Leaf Miner, Chinch Bug, Serpentine Leaf Miner, Leafhoppers — 2 pints per acre. Use coverage. Make first application when 7 day intervals if required. If desired combined with other insecticides in program. Workers entering fields with-

BEST DOCUMENT AVAILABLE

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5905-52 313

# PESTICIDE

FOR THOSE WHOSE CO-OPERED BY

## BEFORE USING!



# Parathion 4-E

## Agricultural Insecticide

(By Weight)

.....	44.10%
.....	2.10%
.....	49.10%
.....	4.00%
.....	100.00%

4E contains 4 pounds of



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English, do not use  
fully explained to

Est. No. \_\_\_\_\_

WARNING

**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 using.

**CURRENT:** Aphids — Use 1/2 to 1/4 pint as leaf buds open in spring. Red Spider Mites — Use 1/2 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 full leaf stage. 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 2 1/2 pints per acre as a full coverage spray. Do not apply within 30 days of harvest.

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

**GRAPES:** Hessian Beetle, Leafhopper, Thrips, Mites, Berry Moths, Grape Mealy Bug — (Dormant Application) 1 1/2 to 3 pints plus 2 gals. dormant oil emulsions 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.

**KOHLRABE:** 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:** Flea, Bob, Leaf, Leaf miners — 1 pint plus 3 lbs. of brown sugar per acre. Aphids, Banded cucumber beetle, leaf hopper, 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:** (Heads) Garden Symphylan — 5 quarts per acre. Spray broadcast on soil surface and work into top 6 to 9 inches by discing or rototilling. Pis plants 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, WATERMELONS) 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 1/2 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.

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

**OLIVES:** Paratonsi Scale, Black Scale — 1 to 1 1/2 gallons per acre as a full coverage spray. Do not apply after August 1.

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

**ORNAMENTALS (Outdoor Only):** Aphids, Whitefly, Spider Mites, Leafhoppers, Vine Scalebug, Geyers, Cottony Cushion Scale — Use 1 pint with 5 gals. of water and spray until runoff. For Spider Mites and Leafhoppers repeat in 7 to 10 days. Juniper Webworm, Lecanium Scale — Use 1/2 to 1 pint with 3 gallons of water and spray until runoff. Armyworms, Squash, Leaf Thrips — Use 1/2 pint with 3 gals. of water and spray until runoff. Apply 1st young or crawling 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 gals. of water.

**PEACHES, NECTARINES:** San Jose Scale, Brown Apple Scale, Walnut Scale, Paratonsi Scale, Pear Psylla, Pear Psylla — (Dormant Application) 1 pint plus dormant oil emulsions per dormant emulsion 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 (times listed) for control of Codling Moth. Apply in early to late summer. Apply 10 to 14 days thereafter until control is achieved.) Bull Moth, Orange Tortrix — 1/2 pint per 100 gals. of water. Tussock Moth — 1/2 pint per 100 gals. of water. Do not apply within 14 days of harvest. Do not apply more than 6 pints per acre.

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

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

**PEANUTS:** To control rat armyworms and red necked peanutworms use 1/2 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 10 days of harvest.

**PLUMS, PRUNES:** Paratonsi Scale, San Jose Scale, Brown Apple Scale, Mealy Plum Aphid, Egg, Leaf Gum, Aphid, Eggs — (Dormant Application) — 1 pint plus dormant oil emulsion or dormant emulsion oil at the dosage recommended for the specific oil product per 100 gals. Fruit Tree Leafhopper, Peach Twig Borer, Codling Moth — 1 pint per 100 gals. of water. (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 (times listed) for control of Codling Moth. Apply in early to late summer. Apply 10 to 14 days thereafter until control is achieved.) Bull Moth, Orange Tortrix — 1/2 pint per 100 gals. of water. Tussock Moth — 1/2 pint per 100 gals. of water. Do not apply within 14 days of harvest. Do not apply more than 6 pints per acre.

**POTATO:** Aphids, Colorado Potato Beetle, Flea Beetle, Grasshopper, Whiteflies, Plant Hugs, Brister Beetle, Vegetable Weevil, Leafhoppers, Leafminers, Stink Bugs, Thrips, Armyworms, Banded Cucumber Beetle, Looper, Leaf Footed Plant Bug — 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. Preplant 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 15 days of harvest.

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

**RICE:** Sharp Rice Leafminer — 3/2 fl. oz. per acre. Do not apply within 1 day of harvest. Shrimp, crabs and crayfish 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 pints 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 midges, 1/2 pint per acre. Sorghum webworms, fall armyworms, armyworms and corn ear worms, use 1/2 to 1 pint per acre. Juncus bugs, use 1/2 pints per acre. Leaf injury may occur in some hybrid varieties of sorghum. Spray a few rows a week or so before heading to test effects on plants. Do not treat within 12 days of harvest or cutting for storage.

**SOYBEANS:** To control webworms use 1/2 pint per acre to control velvet bean caterpillars, green cloverworms, two spotted mites and stink bugs, use 1/2 pint per acre. To control corn earworms and fall armyworms, use 1/2 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 Weevil, Flea Beetle, Seed Corn Maggot on chard, Aphids, Crown Mite — 1 pint per acre. Do not apply within 7 days of harvest.

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

**STRAWBERRY:** Flea Beetle, field crickets, flower thrips, nematodes, red spider mites, Aphids, Lygus Bugs, Potato Leafhopper, Strawberry Leaf Miner, Imported 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, Eggless Beetles, Beet Leafhopper — 1 to 1 1/2 pints per acre. Sugar Beet Borers, False Chelys Leaf Larva — 1 1/2 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. Preplant 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.

**TOMATO:** Aphids, Banded Cucumber Beetle, Looper, Leaf Miners, Spider Mites, Rusty Mite, Stink Bug, Colorado Potato Beetle, Flea Beetle, Leafhoppers, Grasshoppers, Pear Psylla, Pear Psylla, Plant Hugs, Brister Beetle — 1 pint per acre. Vegetable Weevil, Armyworms — 2 pints per acre. Do not apply within 10 days of harvest.

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

**VEICH:** Aphids, Armyworms, Brister Beetles, grasshoppers — Apply 1/2 to 1 pint per acre in sufficient water for thorough coverage at first sign of infestation. Do not apply within 14 days of harvest or forage use.

**WALNUTS:** Frosted Scale, European Fruit Lecanium, California Scale — (Dormant Application) 2 1/2 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. (See Summer to 10 to 15 pints plus dormant oil emulsion on all the other recommended for the specific oil product in 200 to 600 gal. water per acre. Applied by air blast sprayer. Putnam Scale, San Jose Scale — (Dormant application) 2 1/2 pints plus 8 gals. dormant oil emulsion in 200 gals. water per acre applied by air blast sprayer. Do not apply after blossoms open.

### NOTICE OF WARRANTY

Helena Chemical Company warrants that this material conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use and Conditions of Sale, subject to the limitations and restrictions referred to herein.

Helena Chemical Company makes no other express or implied warranty, including any other express or implied warranty of FITNESS or MERCHANTABILITY, and no agent of Helena Chemical Company is authorized to make any statement in writing with a specific reference to this warranty. Any damages arising from a breach of this warranty shall be limited to direct damages and not include consequential commercial damages such as loss of profit or value, etc.

### PARATHION MIXTURE LIQUID

**BEST DOCUMENT AVAILABLE**

NET CONTENTS: \_\_\_\_\_ GALLON

**ACCEPTED**

DEC 5 1980

Federal Insecticide, Fungicide and Rodenticide Act

EPA Reg. No. 5905-82

lightness in chest, labored breathing, nervousness, sweating, watering of eyes, drooping or frothing of mouth and nose, muscle spasms and coma.



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### Physical and Chemical Hazards

**DO NOT USE, POUR, SPILL, OR STORE NEAR HEAT OR OPEN FLAME.**

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

### Directions for Use

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

Workers entering treated fields within 48 hours must wear protective clothing.

#### POST TREATED AREA

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

**READ ENTIRE LABEL ..... USE STRICTLY IN ACCORDANCE WITH DANGER STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

#### KEEP PESTICIDE IN ORIGINAL CONTAINER.

#### USE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE EQUIPMENT AND CLOTHING

- (1) Wear water-proof pants, coat, hat, rubber boots or rubber overshoes
- (2) Wear safety goggles
- (3) Wear a pesticide respirator jointly approved by the Mining Enforcement and Safety Administration formerly the U.S. Bureau of Mines and by the National Institute for Occupational Safety and Health under the provisions of 30CFR Part 11
- (4) Wear heavy duty, natural rubber gloves.

#### WORK SAFETY RULES

Keep all unprotected persons and children away from treated area or where there is danger of drift

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away. Call a doctor (physician), clinic or hospital - immediately. Explain that the victim has been exposed to parathion and describe his condition. After first aid is given (see First Aid Treatment Section) and if a doctor cannot come, take victim to clinic or hospital.

**IMPORTANT!** Before removing gloves, wash them with soap and water. Always wash hands, face and arms with soap and water before smoking, eating or drinking.

**AFTER WORK,** take off all work clothes and shoes. Shower, using soap and water. Wear only clean clothes when leaving job. Do not wear contaminated clothing. Wash protective clothing and protective equipment with soap and water after each use. Respirator should be cleaned and filter replaced according to instructions included with respirator.

### Storage and Disposal

Do not use or store in or around the home. Keep out of reach of children and domestic animals. Do not store near food or feed products.

#### FOR ALL EMPTY CONTAINERS

**DO NOT** re-use the container. Completely empty the contents and bury unused chemical at least 18 inches deep in an isolated location away from water supplies.

**GLASS CONTAINERS** — Break the container and bury the pieces at least 18 inches deep in an isolated location away from water supplies.

residues on crops. Protective information may be obtained from your Cooperative Agricultural Extension Service.

**ALFALFA, CLOVER:** Armyworms Alfalfa Weevil Larvae Webworms — 1/2 to 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 100 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 Schwenck 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 Parlatoria and Scurly Scale) Red-banded Leaf Roller Woolly Apple Aphids — 4 pints per 100 gals. Codling Moth Apple Maggot Oriental Fruit Moth and Plum Curculio — 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 Jonathan and McIntosh apples as well as related varieties such as Cortland Kendall Macoun and Melba.

**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 — 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.)

**ARTICHOKE:** Artichoke Plume Moth Aphids — 1 quart per acre. Do not apply within 7 days of harvest.

**AVOCADOS:** Tortricid Moths (including Arorobia Moth) — apply 1 to 2 1/2 quarts per acre. Do not apply within 1 day of harvest.

**BARLEY, OATS, WHEAT:** Aphids Armyworms Black Grass Bug Slink Bugs Greenbugs Winter Grain Mite Thrips White Spider Mites Leafhoppers Cutworms Grasshoppers Brown Wheat Mites Says Plant Bugs — 1 to 1 1/2 pints per acre. Chinch Bugs False Chinch Bugs — 1 1/2 pints per acre. Do not apply within 15 days of harvest.

**BEANS:** Aphids Armyworms Leafhopper Leaf Roller Lima Pod Borer Mexican Bean Beetle Slink Bugs Thrips — apply 1 pint per acre in sufficient water for thorough coverage. Leafhopper — 1 to 1 1/2 pints per acre. Do not apply within 15 days of harvest. Garden Symphylan — 5 quarts per acre. 5 day broadcast on soil before planting and work into upper 6 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.

**CELERY:** Leafminer and Whitefly Climbing Cutworms, Cabbage Miners, Spider Mites — 1 pine per 5 quarts per acre. Do not spray broadcast on soil before 9 inches by discing or rototilling. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

**CHERNIES:** Brown Apricot Scale Black Cherry Aphid Application) 1 pint plus dormant oil at the dosage recommended per 100 gals. Orange Tortrix (during growing season). Red — 1/2 pint per 100 gals. Cherry worm, San Jose Crawlers — Plum Curculio Oriental Fruit Moth 10 to 14 days thereafter until control is achieved. Apply 1 pint per 100 gals of water. Apply after emergence. Fruit Fall — 1 pint per 100 gals of water. Apply within 5 days of harvest. Repeat immediately every 10 days. Repeat immediate protection use the same dosage. Plum Curculio hole Borer (following petal fall) — 1/2 pint per 100 gals of water of harvest. Do not exceed 400 gals.

**CITRUS (ORANGES, LEMONS, COTTONY-CUSHION AND SNOW SCAPES):** Cottony-cushion and Snow Scapes per 100 gallons of water between 6 o'clock and 10 o'clock. Apply more than 4 quarts of this within 14 days of harvest.

**COLLARDS:** Armyworms, Climbing Cutworms, Cabbage Looper, Weevil — 1 pint per acre. Do not apply within 14 days of harvest.

**CORN:** For control of European Cornborer — 1 pint per acre. Apply the first sprays at 5 to 7 day intervals to provide complete coverage. For control of European Cornborer — 1 pint per acre. Apply the first sprays at 5 to 7 day intervals to provide complete coverage. For control of European Cornborer — 1 pint per acre. Apply the first sprays at 5 to 7 day intervals to provide complete coverage. For control of European Cornborer — 1 pint per acre. Apply the first sprays at 5 to 7 day intervals to provide complete coverage.

**COTTON:** To control Aphids, Fleahoppers, Garden Webworms, For some Spider Mites — 1/2 pint per acre. For Salt Marsh Hoppers, Boll Weevil — 1 pint per acre. For Fall Armyworms, Cotton Bollworms, Cotton Loopers, Boll Weevil — 1 pint per acre. For Bollworms, Cotton Fleahoppers, Serpentine Leafhoppers — 2 pints per acre. Make first application 7 day intervals if required. If combined with other insecticide program. Workers entering field should wear protective clothing within 7 days.

pt of water into empty can and add 1  
 pint. Rotate can carefully to wet all  
 (bury) fine solution of least 18 inches  
 from water supplies. Punch holes in  
 can, and bury deeply in an isolated  
 55-GALLON DRUMS — Pour the  
 water, 1/2 cup caustic soda (household  
 water, 1 lb caustic soda (house-  
 water, 2 lb caustic soda (house-  
 surfaces are thoroughly wet. Bury the  
 deep in an isolated area away from  
 (household type) with extreme care,  
 clothing. Read and carefully follow  
 punch holes in top and bottom of  
 deeply in a isolated area.  
 METHOD CANNOT BE USED  
 and burn in hot fire until all paint has  
 container. Extreme care should be  
 are completely empty and that  
 and fumes. Do not attempt to burn  
 FILING AND SPRAYING  
 while spraying. Apply to row  
 (California only) use 20 to 100  
 and spray rig or 1 to 3 gals  
 water by airplane.  
 tions containing highly alkaline  
 ions or lime. Alkaline compounds  
 tion.  
 if a Weevil Larvae, Webworms  
 Do not apply within 15 days  
 Jose Scale, Parlatoria Scale  
 1/2 pint plus dormant oil  
 at the dosage recommended  
 100 gals. Fruit tree Leafroller  
 1/2 pint per 100 gals. Do  
 exceed 100 gals. Dilute spray  
 days of harvest. Do not feed  
 of Peach Twig Borer —  
 of the moths in early to  
 trunk from ground to scaffold  
 Leafhopper, Grasshopper,  
 Schenck, Willamette and  
 such as Two-Spotted and  
 7 to 10 day intervals during  
 Apple Aphid, Orange Tortrix  
 and Scurfy Scales. Red  
 Aphids — 4 pints per 100 gals.  
 Fruit Moth and Plum  
 Apply at petal fall and every  
 is achieved. Do not apply  
 to susceptible varieties.  
 fruit and foliage of Golden  
 Apples, as well as related  
 ground and Meiba  
 tant Application — 1 pint  
 tant emulsive oil at the  
 oil product per 100 gals.  
 pint per 100 gals. Coding  
 Borer — 1 pint per 100 gals.  
 Do not apply until  
 Do not exceed 700 gals  
 of Peach Twig Borer. Make  
 the moths in early to late  
 from ground to scaffold  
 of Coding Moth  
 14 days thereafter until  
 Aphids — 1 quart per acre  
 Anorbis Moth — apply  
 10 days of harvest  
 Adonis, Black Grass Bug  
 Mites, Thrips, White Spider  
 Mites, Brown Wheat Mites  
 1/2 pint per acre. Chinch Bugs  
 Do not apply within  
 Leaf Roller, Lima Pod  
 Thrips — apply 1 pint  
 Coverage Leafminer —  
 within 15 days of harvest  
 Spray broadcast on soil  
 6 inches by discing or  
 Keep all persons and  
 Do not contaminate  
 7 to 10 day intervals  
 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 6 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, Petrosia Mite, Vegetable Weevil — 1 pint per acre. Tulip Bulb Aphid — 1 1/2 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.

**CELERY:** Leafminer and Whiteflies — 1 1/2 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 — 1/2 pint per 100 gals. Cherry Fruitworm, Bud Moth, Cankerworm, San Jose Crawlers — 1/2 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 1/2 pint per 100 gals of water. For San Jose Scale Crawlers, apply after emergence. Fruit Fly — 1/2 to 1 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 1/2 to 1/2 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 1/2 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 1/2 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 1 1/2 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 — 1/2 pint per acre. For some Spider Mites — 1/4 to 1/2 pint per acre. For Cabbage Loopers, Boll Weevil — 1 pint per acre. For Stink Bugs — 1 to 1 1/2 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.

**RESTRICTED USE PESTICIDE**  
 FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION

**STOP. READ LABEL BEFORE USING!**



# Parathion 4-E

**Emulsifiable Liquid — An Agricultural Insecticide**

ACTIVE INGREDIENTS	(By Weight)
Parathion (O,O-Diethyl O-p-nitrophenyl phosphorothioate)	44.10%
Related Compounds	2.10%
Xylene	49.10%
INERT INGREDIENTS	4.00%
<b>TOTAL</b>	<b>100.00%</b>

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

**PRECAUCIÓN**  
 AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

(TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)

SN-011080M  
 E.P.A. REG. NO. 5905-82      EPA Est No. \_\_\_\_\_  
 SN1-11068-5M

**BEST DOCUMENT AVAILABLE**

**DO NOT RE-USE THIS CONTAINER FOR ANY PURPOSE**



Manufactured by  
**HELENA CHEMICAL COMPANY**  
 Memphis, TN 38137

**CRANBERRY:** Sparganothis Fruitworm, Gibbber, Fruitworm, Fireworm, Leafhopper — Do not apply within 15 days of harvest.

**CUCUMBERS:** Aphids, Cucumber Beetles, Flea Vine Borer, Leafhoppers, Thrips, Spider Mite, Miner — 1 pint per acre. Do not apply within 15 days of harvest.

**CURRENT:** Aphids — Use 1/4 to 1/2 pint per acre. Spring Red Spider Mite — Use 1/2 to 1 pint per acre. Do not apply within 30 days of harvest.

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

**ENDIVE, ESCAROLE:** Aphids, leafhopper — Do not apply within 21 days of harvest.

**FIGS:** Fig Scale Crawlers — 1 to 2 1/2 pints per acre. Do not apply within 30 days of harvest.

**GARLIC:** Leaf Miner, Thrips, Petrosia Mite — Do not apply within 15 days of harvest.

**GRAPES:** Hoplia Beetle, Leafhopper, Thrips, Grape Mealy Bug — (Dormant Application) 2 gals dormant oil emulsion per 100 gals of water. 150 gals spray solution per acre by ground application. 1 pint per 100 gals. per acre spray solution per acre by ground sprayer in 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 Cutworm, Moth, Thrips, Vegetable Weevil, Cabbage Loopers, Worm — 1 pint per acre. Do not apply within 15 days of harvest.

**KOHLRABI:** Armyworms, Climbing Cutworm, Thrips, Vegetable Weevil, Aphids, Cabbage Loopers, Worm — 1 pint per acre. Do not apply within 15 days of harvest.

**LETTUCE (Head, Bibb, Leaf):** Leaf miners of brown sugar per acre. Aphids, Banded Leafhopper, Lygus bugs — 1 pint per acre. Do not apply within 15 days of harvest for head lettuce or within 7 days of harvest for bibb and leaf lettuce.

**LETTUCE (Head):** Garden Symphylan — 5 quarts per acre. Do not apply within 15 days of harvest. Do not apply to soil surface and work into soil by discing or rototilling. Pre-plant soil application. Keep all persons and animals out of treated area. Do not contaminate ponds or streams.

**MELONS: (CANTALOUPE, MUSKMELON, WATERMELON):** Stink Bugs, Vine Borer, Aphids, Cucumber Beetle, Leafhoppers — 1 pint per acre. Do not apply within 7 days of harvest.

**MUSTARD:** Aphids, Cabbage Looper, Climbing Cutworm, Imported Cabbage Worm, Vegetable Weevil and Thrips — Apply 1/2 to 1 pint per acre for thorough coverage. Do not apply within 15 days of harvest. For cabbage loopers and leafminers, apply 1/2 pint per acre.

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

**OLIVES:** Parlatoria Scale, Black Scale — Use 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, and Scurfy Scales (repeat) — 1/2 pint per 100 gals. Use 1/2 pint per 100 gals of water and spray until runoff. Mealybugs — Use 1/2 pint with 3 gals of water and spray until runoff. Repeat in 3 weeks. Do not apply until thoroughly covered. Do not apply to soil surface and work into soil by discing or rototilling. Pre-plant soil application. Keep all persons and animals out of treated area. Do not contaminate ponds or streams.

**ORNAMENTS (Outdoor Only):** Aphids, Leafhoppers, Tenthredinid Moth, Webworms, Cankerworm, Lecanium Scale — Use 1/2 pint per 100 gals of water and spray until runoff. Mealybugs — Use 1/2 pint with 3 gals of water and spray until runoff. Repeat in 3 weeks. Do not apply until thoroughly covered. Do not apply to soil surface and work into soil by discing or rototilling. Pre-plant soil application. Keep all persons and animals out of treated area. Do not contaminate ponds or streams.

**PEACHES, NECTARINES:** San Jose Scale, Walnut Scale, Parlatoria Scale, Peach Twig Borer, Oriental Fruit Moth, and Scurfy Scales (repeat) — 1/2 pint per 100 gals. Use 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, and Scurfy Scales (repeat) — 1/2 pint per 100 gals. Use 1/2 pint per 100 gals of water and spray until runoff. Mealybugs — Use 1/2 pint with 3 gals of water and spray until runoff. Repeat in 3 weeks. Do not apply until thoroughly covered. Do not apply to soil surface and work into soil by discing or rototilling. Pre-plant soil application. Keep all persons and animals out of treated area. Do not contaminate ponds or streams.

# PESTICIDE

FOR THOSE USES COVERED BY

## BEFORE USING!



## on 4-E

gricultural Insecticide

(By Weight)

.....	44.10%
.....	2.10%
.....	49.10%
.....	4.00%
.....	100.00%

4E contains 4 pounds o

### DANGER

Keep Out of Reach of Children

English, do not use if fully explained to

Est No. \_\_\_\_\_

AVAILABLE

R FOR ANY PURPOSE

OMPANY

**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, Petrobria 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 (Head):** Garden Symphylan — 5 quarts per acre. Spray broadcast 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.

**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.

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

**OLIVES:** Parlatoria Scale, Black Scale — 1 to 1½ gallons per acre as a full coverage spray. Do not apply after August 1.

**ONIONS:** Leafminer, Thrips, Petrobria Mite — 1½ pints per acre. Do not apply within 15 days of harvest.

**ORNAMENTALS (Outdoor Only):** Aphids, Whitefly, Spider Mites, Leafhoppers, Thrips, Fleabeetle, Cucumber Colony-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 1½ pints with 3 gallons of water and spray until runoff. Mealybugs, Scales, Leaf Tiers — Use 1½ 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 ½ 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) — ½ 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 — ½ 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 — ½ pint per 100 gallons of water in pre-blossom spray. Pear Psylla — ½ 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, BLACKKEYE:** 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.

**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 to trunk from ground to scaffold limb 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 — ½ 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 — 32 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 pints 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 ½ to 1 pint per acre. Chinch bugs, use 1½ pints per acre. Leaf injury may occur in some hybrid varieties of sorghum. Spray a few rows a week or so before booting to test 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.

**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.

**STRAWBERRY:** Flea Beetles, field crickets, flower thrips, pameas, 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.

**SUGARCANE:** 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.

**VEGETABLES:** 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.

### NOTICE OF WARRANTY

Helena Chemical Company warrants that this material conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Director's for Use and Conditions of Sale. Subject to the inherent risks referred to there in.

Helena Chemical Company makes no other express or implied warranty including any other express or implied warranty of FITNESS or of MERCHANTABILITY, and no agent of Helena Chemical Company is authorized to do so except in writing with a specific reference to this warranty. Any damages arising from a breach of this warranty shall be limited to direct damages, and not include consequential commercial damages such as loss of profit or value, etc.

### PARATHION MIXTURE LIQUID

BEST DOCUMENT AVAILABLE

NET CONTENTS: \_\_\_\_\_ GALLONS

## ACCEPTED

DEC 5 1980

Federal Insecticide,  
Fungicide and Rodenticide Act

EPA Reg. No. 5905-82