

AUG 1 1960
 The Federal Insecticide,
 Fungicide, and
 Rodenticide Act
 524-133

W. R. SWEET RULES

REFRIGERATE IN THE DARK. DO NOT EXPOSE TO
 DIRECT SUNLIGHT. ALL CONTAINERS IN THIS
 GROUP MAY BE KEPT UNDER THE FOLLOWING
 CONDITIONS TO AVOID THE RISK OF
 CONTAMINATION BY OTHERS.

Persons working with this product should have the
 correct blood test of their blood lead level. If
 the blood lead level falls below a critical point,
 no further exposure should be allowed until it has
 been determined by means of blood tests that the
 blood lead level has returned to normal. Before
 using this product, consult the State Agricultural
 Extension Service or Experimental Station for
 specific recommendations regarding such blood
 tests.

Areas and treated plants and children away
 from treated areas where there is danger of drift.

Do not use in mouth with hands. If you feel
 sick in any way STOP work and get help. Wash
 with soap and water. Do not eat, drink or smoke
 immediately after the work has been exposed
 to pollution and describe his condition. After first
 aid give (see First Aid Treatment Section) and
 doctor cannot come, take victim to clinic or
 hospital.

If banded indoors, provide mechanical exhaust
 ventilation.

**HANDLE ONLY WHEN WEAR THE FOLLOWING
 PROTECTIVE EQUIPMENT AND CLOTHING**

1. Wear water proof pants, long rubber boots
 or rubber overalls. Wear safety glasses.

2. Wear mask or respirator approved by the
 National Safety Council for protection of wear
 against irritant vapors.

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

AFTER WORK: Wash face, hands, arms and shoes
 with soap and water. Wear overalls, coat
 and shoes when working. Do not wear contaminated
 clothing, wash clothes, clothing and protective
 equipment with soap and water after each use.
 Respirator should be cleaned and stored in a
 clean, dry place. Do not use with this product.

ATTENTION

This product is highly toxic. It is a powerful
 irritant and may cause severe burns if it
 comes in contact with the skin. It is also a
 powerful irritant to the eyes and may cause
 blindness if it gets into the eyes. It is also
 a powerful irritant to the respiratory tract
 and may cause severe bronchitis and
 pneumonia if it is inhaled. It is also a
 powerful irritant to the mucous membranes
 of the mouth and throat and may cause
 severe inflammation and swelling of the
 throat. It is also a powerful irritant to
 the skin and may cause severe burns if it
 comes in contact with the skin. It is also
 a powerful irritant to the eyes and may
 cause blindness if it gets into the eyes.

Physical and Chemical Hazards

Combustible. Do not use near open flame
 or heat.

Flammable. Do not use near open flame
 or heat.

Irritant. Do not use near open flame
 or heat.

Environmental Hazard

This product is toxic to fish, shrimp, crab, birds, and
 other wildlife. Birds and other wildlife in treated
 areas may be killed. Keep out of lakes, streams,
 ponds, bays, marshes and estuaries. Shrimp and crab
 may be killed at application rates recommended on
 this label. Do not apply where there are important
 resources. Do not apply where runoff is likely to
 occur. 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 product is highly toxic to bees exposed to direct
 treatment or residues on crops. Protective information
 may be obtained from your Cooperative
 Agricultural Extension Service.

LIMIT OF WARRANTY AND LIABILITY

This company warrants that this product conforms
 to the chemical description on the label and is
 reasonably fit for the purposes set forth in the
 Complete Directions for Use (Directions) when used
 in accordance with these Directions. NO OTHER
 EXPRESS OR IMPLIED WARRANTY IS MADE AND
 THE IMPLIED WARRANTY OF MERCHANTABILITY AND
 FITNESS FOR PARTICULAR PURPOSE IS EXCLUDED.
 This warranty is also subject to the conditions
 and limitations stated herein.

Buyers and all users are responsible for all loss or
 damage from use or handling which results from
 conditions beyond the control of this company, in-
 cluding, but not limited to, incompatibility with
 products other than those set forth in the Direc-
 tions and application in any manner not explicitly
 set forth in the Directions.

**THE EXCLUSIVE REMEDY OF THE USER OR BUYER
 AND THE LIMIT OF THE LIABILITY OF THIS COM-
 PANY OR ANY OTHER SELLER FOR ANY AND ALL
 LOSSES, INJURIES OR DAMAGES RESULTING FROM
 THE USE OR HANDLING OF THIS PRODUCT, INCLUD-
 ING CLAIMS BASED IN CONTRACT, NEGLIGENCE,
 STRICT LIABILITY, OR OTHERWISE, SHALL BE THE
 PURCHASE PRICE PAID BY THE USER OR BUYER
 FOR THE QUANTITY OF THIS PRODUCT PURCHASED
 OR AT THE OPTION OF THIS COMPANY OR ANY OTHER
 SELLER, THE REPLACEMENT OF SUCH QUANTITY IN
 KIND OR IN KIND. THIS COMPANY OR ANY OTHER
 SELLER SHALL NOT BE LIABLE FOR INCIDENTAL OR
 CONSEQUENTIAL DAMAGES.**

The Buyer and all users are deemed to have ac-
 cepted the terms of this LIMIT OF WARRANTY AND
 LIABILITY which may not be varied by any verbal or
 written agreement.

(E) 115-1-11 85629-700 JAN

Storage and Disposal

Do not store in areas where it may be used by storage
 subjects.

Keep out of reach of children and domestic animals.
 Not for use or storage in or around the home.

Empty storage clean up area with strong detergent
 and water. Do not use this container. Completely empty the
 contents and bring the product container at least 18
 inches deep in an isolated location away from water
 supplies. Rinse out the inside of the container with
 water to which has been added detergent and
 caustic soda. Carefully discard the residue by
 burying at least 18 inches deep in an isolated area
 away from water supplies. Puncture and crush
 empty metal container and bury at least 18 inches
 deep in a step and public disposal site.


POST TREATED AREA

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

CROP USE DIRECTIONS

Use only according to attached label booklet in-
 structions.

MONSANTO COMPANY • AGRICULTURAL PRODUCTS • ST. LOUIS, MISSOURI, 63166 U.S.A.



POISON

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PARATHION MIXTURE, LIQUID

In case of any evidence of damaged or leaking containers
 telephone collect. (205) 236-6381 Monsanto, Anniston, Alabama


BEST DOCUMENT AVAILABLE

VEGETABLE INSECTS	
ARTICHOKES	LETTUCE
BEANS	Leaf
BEETS	Leaf and Ribb
MACREYED PEAS	MELONS
CABBAGE AND	MUSTARD GREENS
CORE CROPS	ONION
Broccoli	ONIONS
Brussels Sprouts	PEAS
Cauliflower	PEPPERS
CARROTS	POTATOES
CELERY	PUMPKINS
COLLARDS	RADISHES
CUCUMBERS	RUTABAGAS
EGGPLANT	SPINACH
ENDIVE	SQUASH
GARLIC	SWEET CORN
KALE	SWEET POTATOES
KOHLEBI	SWISS CHARD
	TOMATOES
	TURNIPS
SOIL INSECTS	
CORN ROOTWORMS	WHITE GRUBS
CUTWORMS	WIREWORMS
GARDEN	
SYMPTOM	
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STOP! READ THE LABEL

DANGER! POISON

Keep out of reach of children.



CAN KILL YOU

ACTIVE INGREDIENTS:

*Parathion, O,O diethyl, O p nitrophenyl phosphorothioate	43.3%
*Related compounds	2.3%
Xylene range aromatic solvents	47.9%
INERT INGREDIENTS:	5.5%
	100.0%

*Parathion and related compounds equivalent to 4.0 lbs per gallon

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PRECAUTIONARY STATEMENTS
Hazard to Humans and Domestic Animals

CAN KILL YOU IF SWALLOWED

This product can kill you if swallowed even in small amounts. Spray mist or dust may be fatal if swallowed.

DO NOT SWALLOW

CAN KILL YOU BY SKIN CONTACT

This product can kill you if touched by hands or spilled or splashed on skin, in eyes or on clothing (liquid goes through clothes).

DO NOT TOUCH

CAN KILL YOU IF BREATHED

This product can kill you if vapors, spray mist or dust are breathed.

DO NOT BREATHE

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POISON SIGNS (Symptoms)

Parathion is a very dangerous poison. It rapidly enters the body on 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.

POISON

ATROPINE IS AN ANTIDOTE.
CONSULT PHYSICIAN FOR EMERGENCY SUPPLY.

CALL A PHYSICIAN AT ONCE IN ALL CASES OF SUSPECTED PARATHION POISONING.

If symptoms or signs of poisoning include blurred vision, abdominal cramps, and tightness in the chest, do not wait for a doctor but give two atropine tablets (each 1/100 grain or 0.65 milligrams) at once. (One tablet to children under five years of age.)

FIRST AID TREATMENT

Call doctor (physician), clinic or hospital.

Poison Signs (Symptoms) and First Aid Treatment 9

immediately. Explain that the victim has been exposed to parathion and describe his condition. Have patient immediately rinse the area where parathion is present.

If breathing has stopped, start artificial respiration immediately and maintain until doctor sees victim. If swallowed and victim is awake (conscious) make him vomit quickly. Have victim 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. Have victim lie down and keep quiet. 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, 1.0 to 4.0 mg intravenously or intramuscularly as soon as symptoms are overcome. Repeat at 5 to 10 minute intervals until signs of atropinization appear. 2 PAM chloride is a pharmacologic antidote and may be administered as an adjunct to, but not a substitute for, atropine which is a symptomatic and often life saving antidote. **DO NOT GIVE MORPHINE, THEOPHYLLINE, ETHYLENE DIAMINE (AMINOPIPERINE), PHENOTHIAZINES OR PARENTHETIC TYPE OF TRANQUILIZERS AS ANTIDOTES.**

First Aid and Antidote 9a

THESE ANTIDOTES MAY PRODUCE ADVERSE EFFECTS ACCENTUATING THE PHARMACOLOGIC EFFECT OF THIS PRODUCT. This product 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 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.**

WORK SAFETY RULES

REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CONTAINED IN THIS PRODUCT MAY WITHOUT WARNING CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

Persons working with this product should have frequent blood tests of their cholinesterase levels. If the cholinesterase level falls below a critical point, no further exposure should be allowed until it has been determined by means of blood tests that the cholinesterase level has returned to normal. Before using this product, consult the State Agricultural Extension Service or Experimental Station for specific recommendations regarding such blood tests.

Keep all unprotected persons and children away

Work Safety Rules 10

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.

If handled indoors provide mechanical exhaust ventilation.

HANDLE 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 mask or respirator approved by the NIOSH/MSHA for parathion protection. (4) Wear heavy duty natural rubber gloves.

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.

Work Safe Rules 11

ATTENTION

TO PREVENT PERSONAL INJURY AND POSSIBLE FATALITIES

Keep all persons and animals out of treated areas for 48 hours.

Treated areas should not be re entered until drilling insecticide and volatile residues have dissipated. Do not use in any manner other than recommended on this label.

To avoid excessive residues of parathion on food or forage crops, always observe the statements found under Directions for Use limiting the time before harvest when parathion may be applied.

Because this material is poisonous by skin contact, inhalation or swallowing it should not be used in such a manner or under weather conditions as will permit drift of the spray onto areas not intended to be sprayed.

Do not apply or allow drift to areas occupied by unprotected humans or beneficial animals.

Physical or Chemical Hazard

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

In case of FIRE, use water spray, foam dry chemical or CO₂. SPILL or LEAK keep all unprotected persons away. Cover with absorbent such as soda ash, lime, clay

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or saw dust. Sweep up and bury. Wash area thoroughly with strong lye solution.

Environmental Hazard

This product is toxic to fish, shrimp, crab, birds, and other wildlife. Birds and other wildlife in treated areas may be killed. Keep out of lakes, streams, ponds, tidal marshes and estuaries. Shrimp and crabs may be killed at application rates recommended by this label. Do not apply where these are important resources. Do not apply where runoff is likely to occur. 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 product is highly toxic to bees exposed to direct treatment or residues on crops. Protective information may be obtained from your Cooperative Agricultural Extension Service.

Storage and Disposal

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

Keep out of reach of children and domestic animals. Not for use or storage in or around the home.

Bury spillage, clean up area with strong lye solution. Do not re use this container. Completely empty the contents and bury the unused chemical at least 18

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inches deep in an isolated location away from water supplies. Rinse out the inside of the container with water to which has been added detergent and caustic soda. Carefully discard the rinse solution by burying at least 18 inches deep in an isolated area away from water supplies. Puncture and crush empty metal container and bury at least 18 inches deep in a supervised public or private dump.

POST TREATED AREA

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

DIRECTIONS FOR USE

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

Be sure to read the precautionary statements before using!

This product is designed for application after dilution with water and for use by trained operators using airplane or power ground equipment. The hazards and precautions for handling the product in this container are equally applicable to it after dilution with water for spray application. Add the concentrate to the spray tank while filling with water and mix thoroughly either by means of a tank agitator or pump by pass. For best results, thoroughly cover all surfaces to be treated with spray. Rates of application given below should not be exceeded. Never apply later than indicated to assure residue

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levels at harvest are below tolerances established by the Food and Drug Administration.

Consult the State Agricultural Extension Service or Experiment Station for specific recommendations regarding application, dosage and timing of sprays for application by ground equipment. Add the desired amount of concentrate to sufficient water to apply at least 3 gallons of water per acre. For application by aircraft, add the amount of concentrate desired per acre to 1/4 to 3 gallons of water consistent with crop growth and good coverage. Greater quantities of water may be required to give sufficient coverage of orchard trees.

CEREAL

DO NOT APPLY WITHIN 15 DAYS OF HARVEST, CUTTING OR FORAGE USE ON THE FOLLOWING CROPS.

RICE (California) - To control rice leaf miners and tufted shrimps, use 1/2 pint per acre. Shrimps, crabs and crayfish may be killed. Do not apply where these are important resources.

DO NOT APPLY WITHIN 12 DAYS OF HARVEST, CUTTING OR FORAGE USE ON THE FOLLOWING CROPS.

CORN - For control of European corn borers, use 1 pint per acre. Apply the first spray when 75% 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 be certain whorls of plant are well treated. For corn leaf aphids and grasshoppers, use 1/4 to 1 pint per acre. For fall armyworms, corn earworms, corn rootworm adults, armyworms, climbing cutworms, grasshoppers and Japanese beetles, use 1/2 pint per acre. To control stink bugs and spider mites, use 1 pint per acre. To control chinch bugs, use 1 1/4 pints per acre.

SORGHUM - To control sorghum midge, apply at rate of 1 pint to 1 quart 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. For corn leaf aphids, grasshoppers, greenbugs and mites, use 1/2 pint per acre. For sorghum webworms, fall armyworms, armyworms and corn earworms, use 1/4 to 1 pint per acre. To control chinch bugs, use 1 1/4 pints per acre. Leaf injury may occur on some hybrid varieties of sorghum. Spray a few rows a week or so before booting to test effects on plants.

DO NOT APPLY WITHIN 1 DAY OF HARVEST, CUTTING OR FORAGE USE ON THE FOLLOWING CROPS.

SMALL GRAINS (Wheat, Oats, Barley) - To control armyworms, aphids (greenbugs) and winter grain

insects, use 1 pint per acre. For thrips use 1/2 pint per acre. For Say's plant bugs use 1/2 pint per acre. For black grass bugs, stink bugs, white spider mites, leafhoppers, climbing cutworms, grasshoppers and brown wheat mites, use 1 pint per acre. For chinch bugs, false chinch bugs and bank grass mites, use 1 1/4 pints per acre.

FIELD AND FORAGE CROPS

DO NOT APPLY WITHIN 20 DAYS OF HARVEST, CUTTING OR FORAGE USE ON THE FOLLOWING CROPS.

SOYBEANS - To control webworms, use 1/2 pint per acre. To control velvet bean caterpillars, grasshoppers, green cloverworms, two-spotted mites and stink bugs, use 1 pint per acre. To control corn earworms and fall armyworms, use 1 to 1 1/2 pints per acre. To control lesser cornstalk borer, use 2 to 3 pints per acre. 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.

DO NOT APPLY WITHIN 15 DAYS OF HARVEST, CUTTING OR FORAGE USE ON THE FOLLOWING CROPS.

ALFALFA, CLOVER, VETCH AND GRASS - For sweet clover aphids, three-cornered alfalfa hoppers, alfalfa

caterpillars and spittlebugs, use 1/2 pint per acre. For aphids, alfalfa weevil larvae, and adult weevils, armyworms, clover leaf weevils, climbing cutworms, webworms, grasshoppers, crickets, spotted alfalfa aphids, leafhoppers, Lygus bugs, thrips, and tortricid moths, use 1/2 to 1 pint per acre. For control of range caterpillars, use 1 pint per acre. For alfalfa seed chalcids, control on alfalfa grown for seed, use 1/2 to 1 pint per acre. California and Nevada regulations limit the use of this material to not more than 1/2 pint per acre. For clover head weevils, spider mites, blister beetles, Asiatic garden beetles, sweet clover weevils, and green June beetles, use 1 pint per acre. For beet armyworms and corn earworms, use 1 to 1 1/2 pints per acre. Do not spray legumes during bloom period to avoid injury to honey bees.

PEANUTS - To control fall armyworms, climbing cutworms, corn earworm, grasshoppers, leafhoppers and red necked peanutworm, saltmarsh caterpillar, three cornered alfalfa hopper, and webworm, use 1 pint per acre. To control lesser cornstalk borer, use 1 pint to 1 quart per acre. Direct spray to soil surface and base of plants.

SUGAR BEETS - For alfalfa loopers, aphids, armyworms, leafhoppers, blister beetles, flea beetles, leaf miners, Lygus bugs, stink bugs, webworms, climbing cutworms and grasshoppers, use 1 pint per acre. For false celery leaf tiers, use 1 1/4 pints per acre. For beet crown borers, use 1 1/4 pints

per acre ground application over the row during seedling stage. To control wireworms, broadcast 1 gallon per acre just prior to planting and thoroughly incorporate into upper 4 to 6 inches of soil.

SUGARCANE - To control wireworms, use 2 quarts in 10 to 12 inch band in the open furrow at time of planting.

DO NOT APPLY WITHIN 7 DAYS OF HARVEST ON THE FOLLOWING CROPS.

COTTON - To control aphids, mites, cotton leafworms, cotton fleahoppers, garden webworms and thrips, use 1/2 pint per acre. For some spider mites, use 1/4 to 1/2 pint per acre. For cabbage loopers, use 1/2 to 1 pint per acre. For boll weevils and stink bugs, use 1 to 1 1/2 pints per acre. For salt marsh caterpillars, use 1 to 2 pints per acre. For bollworms, cotton leaf perillators, Lygus bugs, false chinch bugs, sepioline leaf miners and southern garden leafhoppers, use 1 quart 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 formulation may be combined with other insecticides in a complete cotton spray program.

DO NOT APPLY WITHIN 5 DAYS OF HARVEST ON THE FOLLOWING CROPS.

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Field and Forage Insects 17

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TOBACCO - For control of aphids, stink bugs and tobacco sucklies, use 1/2 pint per acre. Do not apply within 5 days of picking 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.

FRUIT

DO NOT USE TREATED CITRUS PEEL FOR FOOD PURPOSES

CITRUS (California) - Grapefruits, Kumquats, Lemons, Limes, Oranges, Tangerines and Tangerines.

Scale - For purple, black, brown soft, California red, cedar, cottony cushion and yellow scales, use 1/2 to 1 pint in 100 gallons of water applied at petal fall to prevent fruit scattering.

Other insects - Use 1 to 2 quarts in 100 gallons of water for control of the following additional insects infesting citrus: climbing cutworms, fruit tree leaf rollers, halpids, omnivorous leaf rollers, Fuller rose beetles, pink scavenger caterpillars, orange looper, mealyworms and Western tussock moths. Do not use more than 2 1/2 gallons of this product per acre up to 30 days of harvest. Do not use more than 1 gallon of this product per acre from 30 days up to 15 days of harvest. Consult agricultural experimental authorities for specific recommendations in your area.

CITRUS (Areas other than California) - Grapefruits, Kumquats, Lemons, Limes, Oranges, Tangerines and Tangerines.

Leaf - For mealybugs, chaff, cottony cushion, Glover's, purple Florida red, yellow, snow scales, aphids, orange dog and plant bugs, using 1/2 to 1 pint in 100 gallons of water. For control of mites and whiteflies, use 1/2 to 1 pint with 1 gallon of emulsive oil concentrate in 100 gallons of water. For controlling grasshoppers, use 1 pint per acre. Thorough coverage is essential for best results. Do not use more than 2 1/2 gallons of this product per acre up to 30 days of harvest. Do not use more than 1 gallon of this product per acre from 30 days up to 15 days of harvest.

DO NOT APPLY TO CURRANTS AND FIGS WITHIN 30 DAYS OF HARVEST

CURRANTS - For control of currant aphids, use 1/2 to 1 pint per acre. For control of two spotted spider mites, use 1 to 1 1/2 pints per acre. For currant borers, use 1 1/2 pints per acre.

FIGS - For two spotted and Pacific mites, use 1/2 to 1 pint per 100 gallons of water. For fig scales, use 1 pint per 100 gallons of water. Do not use more than 2 1/2 quarts of this product per acre.

DO NOT APPLY TO AVOCADO WITHIN 21 DAYS OF HARVEST

AVOCADO - To control banded cucumber beetles, grasshoppers, citrus root weevils, red banded thrips, avocado lace bugs, psyllid scales, webbing worms, blossom anomala, little tree ants, greenhouse thrips and tortricids, use 1/2 pint in 100 gallons of water. To control whiteflies, use 1/2 pint with 1 gallon of emulsive oil concentrate in 100 gallons of water. To control Florida red scales, Florida wax scales, die-typusperium scales and avocado leafhoppers, use 1/2 pint in 100 gallons of water. To control pumpkin bugs and mealybugs, use 1/2 to 1 pint in 100 gallons of water. To control latania scales, use 1/2 pint in 100 gallons of water. Do not use more than 2 1/2 quarts of this product per acre.

DO NOT APPLY TO THE FRUITS LISTED BELOW WITHIN 15 DAYS OF HARVEST

CANEBERRIES (Raspberries, Loganberries, Boyson berries and Blackberries) - For control of two spotted spider mites, use 1/2 pint per acre. For control of chryse and winds weevils, use 1 quart per acre as a post harvest application to the soil or ground cover over roots of plants. For crown borers, use 1 quart per acre but apply to crown area and lower canes.

CRANBERRIES - For control of fireworms, fruit worms, tipworms and lecanium scales, use 1 1/2 pints per acre.

GOOSEBERRIES - For control of currant aphids, use

1/2 to 1 pint per acre. For control of two spotted spider mites, use 1 to 1 1/2 pints per acre. For currant borers, use 1 1/2 pints per acre.

DO NOT APPLY TO THE FRUITS LISTED BELOW WITHIN 14 DAYS OF HARVEST

APPLES - For control of European sawflies, San Jose, Farber or scurfy scales, mealybugs, European red and two spotted mites, bagworms, Japanese beetles, shot hole borers, orange tortrix and apple lace bugs, dilute 1/2 pint in 100 gallons of water and spray to cover foliage thoroughly. For codling moths, use 1/2 pint in 100 gallons of water. 3 to 4 applications 10 to 14 days apart, starting 10 to 14 days after petal fall, for second and third broods. Spray 1 to 3 times at 10 to 14 day intervals for fruit tree leaf rollers, use 1/2 pint per 100 gallons of water at petal fall and for red banded leaf rollers, apply 1/2 pint per 100 gallons of water at petal fall and at first fifth and sixth cover spray for plum curculio, apply at 1/2 pint per 100 gallons of water at petal fall and 1 or 2 additional times each 7 to 10 days apart. For grasshoppers, use 1/2 pint in 100 gallons. For the following insects, 1/2 pint per 100 gallons of water is adequate: bud moths, clover, Pacific, Willamette or Schenck mites, flea weevils, rusy, wooly and green apple aphids, leafhoppers, leaf miners and red bugs. Certain insects, such as two spotted and Willamette mites, may require repeat treatments at 7 to 10 day intervals during the summer months.

Dacnathion sprays may injure the foliage and fruit of McIntosh apples and certain varieties, such as Cortland, Red Fuji, Macoun, Melba, etc. and Golden Delicious or Jonathan. Consult the State Agricultural Extension Service or Experiment Station for advice on possibility of injury and salting the spray by using activated carbon. Do not use more than 1 1/2 gallons of this product per acre.

APRICOTS - To control aphids, mites, bud moths, peach tree borers, Japanese beetles and leaf rollers, use 1/2 pint in 100 gallons of water. Control of codling moths, lesser peach tree borers, grasshoppers and linden requires 1/2 to 1 pint per 100 gallons. To control Oriental fruit moths, use 1/2 to 1 pint per 100 gallons of water at shuck split, 10 to 12 days later and if needed 6 and 3 weeks before harvest. For peach tree borers and lesser peach tree borers, apply 2 or 3 sprays to trunk from ground to scaffold limbs timed with moth emergence. Use 1/2 pint in 100 gallons of water for control of Pandemus moths. Avoid injury to bees by delaying spray till after full bloom. Do not use more than 3 1/2 quarts of this product per acre.

BLUEBERRIES - For thrips, maggots, curculio and tip borers, use 1/2 pint in 100 gallons of water. For lecanium scales, use 1 pint per 100 gallons of water. Use before fruit sets or after harvest. Use from 100 to 300 gallons of diluted spray per acre, but do not apply more than 1 1/2 pints of this product to one acre of blueberries at any application.

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Fruit Insects cont'd 23

Fruit Insects cont'd 24

CHERRIES — For aphids and mites, mix ½ pint in 100 gallons of water. For sawflies, use ½ to ¾ pint in 100 gallons of water. Use ½ pint per 100 gallons for thrips, cherry fruitworms, pear slugs, Pandemis moths, bud moths, cankerworms, rose chafers, San Jose scale crankers, fruit flies and tortrix. For fruit tree leaf rollers, use ½ pint per 100 gallons of water at petal fall or shuck split. For plum curculio, use ½ pint per 100 gallons of water, 2 or 3 applications, 8 to 10 days apart, beginning at petal fall or shuck split. For Oriental fruit moths, use ½ pint in 100 gallons of water at shuck split and 10 to 12 days later. For Japanese beetles, use ¼ to 1 pint per 100 gallons. Do not use more than 2½ quarts of this product per acre.

GRAPES — For mites, aphids, mealybugs and berry moths, use ½ pint per 100 gallons of water. For leaf rollers, Japanese beetles and leaf folders, use ½ pint per 100 gallons of water. For false chinch bugs, use 1 pint in 100 gallons of water per acre by ground equipment or in 10 gallons of water by aircraft. For consperse stink bugs, use 1½ quarts per acre. For grape leafhoppers, use 1½ to 2½ quarts per acre. For black vine weevils, use 2½ quarts per acre. Do not use more than 1½ quarts of this product per acre after the fruit is the size of buckshot. Use 300 to 500 gallons of water per acre depending on age of vineyard and stage of plant growth.

Fruit Insects cont'd 25

PEACHES AND NECTARINES (Areas other than California) — For control of green peach aphids, use ½ pint in 100 gallons of water. For peach tree borers, leaf rollers, mites, callicing insects, tarnished plant bugs, shot hole borers, peach bark beetles, scales and bud moths, mix ½ pint per 100 gallons of water and repeat if re-infestation occurs. For Oriental fruit moths, see under apricots. For plum curculio, use ½ pint per 100 gallons of water. In the South, treat at petal fall, 10 days later and repeat at 7 to 10 day intervals up to 3 weeks before harvest. In the North, treat 3 to 4 times 7 to 10 days apart, beginning at shuckoff. For lesser peach tree and American plum borers and grasshoppers, use ¼ to 1 pint per 100 gallons. For peach tree borers and lesser peach tree borers, apply 2 or 3 sprays to trunk from ground to scaffold limbs timed with moth emergence. Do not apply more than 4 quarts of this material per acre at any application, and do not use more than 5 quarts per acre per year.

PEACHES AND NECTARINES (California) — Use as shown for other areas except do not apply within 21 days of harvest. Do not apply more than once after bloom. Do not apply more than 2½ quarts of this product per acre at any application, and do not use more than 5 quarts per acre between January 1 and harvest.

PEARS — For control of leaf miners, aphids, leaf rollers, grasshoppers, scales, mealybugs and certain fruit insects cont'd 26

mites, use the dosage described for those insects on apples. For pear psylla, use ½ pint per 100 gallons of water. For pear blister mites, pear slugs, green fruit worms and plant bugs, use ½ pint per 100 gallons of water. For codling moths, use ½ pint in 100 gallons of water in 2 to 4 cover sprays beginning with the first cover. For plum curculio, apply ½ pint in 100 gallons of water at petal fall and 10 days later. Some injury may occur on Bosc pears, under some conditions. Do not use more than 3½ quarts of this product per acre.

PLUMS AND PRUNES — Apply ½ to ¾ pint per 100 gallons of water for control of these insects: pear thrips, flower thrips, mites, aphids, leafhoppers, leaf rollers, peach tree borers, shot hole borers, bud moths, tortrix, mealy plum lice and scales. Apply scale treatment when crawlers emerge. For plum curculio, make 3 to 4 applications, beginning at petal fall, at rate of ½ pint in 100 gallons of water. For codling moths, use ½ to 1 pint per 100 gallons of water at petal fall and a summer application timed with moth emergence. For peach twig borers, use 1 pint per 100 gallons of water. Do not use more than 4 quarts of this product per acre.

STRAWBERRIES — To control flower thrips, crickets, flea beetles, red spider mites, aphids, Lygus bugs, leafhoppers, whiteflies and leaf rollers, use ½ to 1 pint in 100 to 150 gallons of water per acre. To control weevils, crown borers and strawberry leaf

Fruit Insects cont'd 27

beetles, use ½ pint in 100 to 150 gallons of water per acre. As a foliar treatment, do not use more than 1½ pints of this product per acre. To control garden

DO NOT APPLY TO THE FRUITS LISTED BELOW WITHIN 7 DAYS OF HARVEST

PINEAPPLES — For control of crickets and mealybugs, use ½ pint per 100 gallons of water, and apply 300 gallons of spray per acre.

DO NOT USE PARATHION ON OLIVES AFTER AUGUST 1.

OLIVES — For black, oleander and parasitica scales, use 1 pint in 1½ gallons light medium grade summer oil emulsion, or 1 gallon light medium grade summer emulsion oil in 100 gallons of water, post-bloom.

Fruit Insects cont'd 28

NUTS
DO NOT APPLY AFTER HULLS OR HUSKS BEGIN TO OPEN. DO NOT FEED TREATED HULLS OR HUSKS TO LIVESTOCK.

ALMONDS — To control fruit tree leaf rollers, tent caterpillars and peach twig borers, use 1 pint per 100 gallons of water. As a dormant spray for parasitica and San Jose scales, use 1 pint with 3 gallons dormant oil emulsion or 2½ gallons dormant emulsion oil in 100 gallons of water. Do not use more than 3 quarts of this product per acre.

ALBERTS — For apple mealybugs, libbet aphids, bud moths and spider mites, use ½ pint per 100 gallons of water. Do not use more than 3 quarts of this product per acre.

PECANS — For control of aphids, use ½ to ¾ pint in 100 gallons of water. To control mites, pecan nut casebearers and pecan leaf casebearers, use ½ pint in 100 gallons of water. To control black and yellow pecan aphids, fall webworms and twig girdlers, use 1 pint per 100 gallons of water. Do not use more than 5½ quarts of this product per acre.

WALNUTS — To control aphids, pecanium scales and walnut hush flies, use ½ pint in 100 gallons of water. Do not use more than 2½ gallons of this product per acre.

Nut Insects 29

VEGETABLES

DO NOT APPLY WITHIN 21 DAYS OF HARVEST ON THE FOLLOWING CROPS UNLESS OTHERWISE SPECIFIED

CELERY — To control aphids, mites, celery worms and tarnished plant bugs, use 1 pint per acre. To control leaf miners, whiteflies and leafhoppers, use 1½ pints per acre, but do not use within 30 days of harvest.

ENDIVE — To control green peach aphids and alfalfa loopers, use 1 pint per acre.

LETTUCE (Leaf and Bibb) — For aphids, armyworms, cabbage loopers, imported cabbageworms, banded cucumber beetles and Lygus bugs, use ½ to 1 pint per acre. To control six spotted leafhoppers, use ½ pint per acre. For harlequin bugs and vegetable weevils, use 1 pint per acre. At the ½ pint rate, harvest can be made within 14 days of application.

ORRA — To control leaf miners and spider mites, use ½ to 1 pint per acre. For aphids and stink bugs, use 1 pint per acre.

SWISS CHARD — To control aphids and serpentine leaf miners, use 1 pint per acre.

DO NOT APPLY WITHIN 15 DAYS OF HARVEST ON THE FOLLOWING CROPS UNLESS OTHERWISE SPECIFIED

Vegetable Insects cont'd 30

BEANS — For control of bean leaf beetles and two spotted mites, use ½ pint per acre. Use ½ to ¾ pint per acre to control thrips and lima pod borers. To control stink bugs, plant bugs, Mexican bean beetles, leaf rollers, leaf miners, leafhoppers, aphids, red spider mites and armyworms, use 1 pint per acre.

BEETS — To control flea beetles and leaf miners, use ½ pint per acre. For aphids, blister beetles and web worms, use 1 pint per acre. If greens are used for food, do not use within 21 days of harvest.

BLACKBEYED PEAS — To control aphids, leaf miners, bean leaf rollers and stink bugs, use 1 pint per acre.

CARROTS — To control leaf miners, use ½ to ¾ pint per acre. To control leafhoppers, use ½ pint per acre. Use 1 pint per acre to control aphids, vegetable weevils, stink bugs and pettinia mites. To control rust fly maggots (first brood), mix 1 pint with 100 gallons per acre and dribble into furrow at planting time. To control rust fly maggots (second brood), use 1 pint per acre as a foliage spray. Do not feed tops.

CUCUMBERS — For squash vine borers, aphids, cucumber beetles, leaf miners, pickleworms, mites and thrips, use ½ to 1 pint per acre. For squash bugs, stink bugs, flea beetles and leafhoppers, use 1 pint per acre. Do not apply prior to vining.

Vegetable Insects 31

EGGPLANT — To control thrips, leaf miners, blister beetles and flea beetles, use ½ to ¾ pint per acre. To control Colorado potato beetles, use ½ pint per acre. To control spider mites and lace bugs, use ¼ to 1 pint per acre. To control aphids, whiteflies and stink bugs, use 1 pint per acre.

GARLIC — To control onion thrips, use ½ pint per acre. To control leaf miners and pettinia mites, use 1 pint per acre.

ONIONS — To control onion thrips, use ½ pint per acre. To control onion maggot flies, use ¼ pint per acre. To control aphids, stink bugs, leaf miners and pettinia mites, use 1 pint per acre. To control brown wheat mites, use 1½ pints per acre.

PEPPERS — To control thrips, use ½ to ¾ pint per acre. To control aphids, leaf miners and western potato flea beetles, use 1 pint per acre.

RADISHES — To control aphids, false chinch bugs and harlequin bugs, use ½ to 1 pint per acre. To control cabbage loopers and diamondback moths, use 1 pint per acre.

SPINACH — To control aphids, leaf miners, armyworms, cabbage loopers, vegetable weevils, harlequin bugs, seed corn maggots, crown mites and leafhoppers, use 1 pint per acre.

Vegetable Insects cont'd 32

SQUASH — To control cucumber beetles, aphids, stink bugs, melonworms, pickleworms, climbing cutworms, serpentine leaf miner and squash vine borers, use ½ to 1 pint per acre. To control squash bugs, flea beetles and leafhoppers, use 1 pint per acre.

SWEET POTATOES — To control aphids, spider mites, leafhoppers and stink bugs, use 1 pint per acre. To control serpentine leaf miners and mealybug leaf miners, use 1 to 1½ pints per acre.

DO NOT APPLY WITHIN 12 DAYS OF HARVEST ON THE FOLLOWING CROPS

SWEET CORN — To control corn earworms feeding in the bud, fall armyworms, aphids and silkflies, use ½ pint per acre. To control sap beetles and spider mites, use 1 pint per acre. To control chinch bugs, use 1½ pints per acre.

DO NOT APPLY WITHIN 10 DAYS OF HARVEST ON THE FOLLOWING CROPS UNLESS OTHERWISE SPECIFIED

PEAS — To control aphids, pea weevils, spider mites, stink bugs, thrips, armyworms, climbing cutworms, leaf miners, alfalfa loopers and celery loopers, use 1 pint per acre. If peas are to be used for forage, do not harvest for 15 days after treatment.

Vegetable Insects cont'd 33

PUMPKINS — To control cucumber beetles, climbing cutworms, squash bugs and squash vine borers, use ½ to 1 pint per acre.

CUCARDS, KALE AND MUSTARD GREENS — To control aphids, leaf miners, armyworms, cabbage loopers, vegetable weevils, harlequin bugs, seed corn maggots, crown mites and leafhoppers, use 1 pint per acre. On fall and winter crops, do not use within 15 days of harvest.

TOMATOES — To control blister beetles, use ½ pint per acre. To control hornworms, leafhoppers and psyllids, use ½ pint per acre. For aphids, leaf miners, whiteflies, armyworms, grasshoppers, mites, tomato russet mites, leaf hoppers, stink bugs, loopers and plant bugs, use 1 pint per acre.

TURNIPS — To control aphids, cabbage weevils, climbing cutworms, vegetable weevils, false chinch bugs and harlequin bugs, use ½ to 1 pint per acre. To control cabbage loopers, use 1 pint per acre. If greens are used for food, do not apply within 21 days of harvest.

DO NOT APPLY WITHIN 7 DAYS OF HARVEST ON THE FOLLOWING CROPS UNLESS OTHERWISE SPECIFIED

ARTICHOKES — To control artichoke plume moths, use 1 quart per acre.

Vegetable Insects cont'd 34

CABBAGE AND COLE CROPS (Broccoli, Brussels Sprouts, Cauliflower) — To control aphids, thrips, diamondback moth larvae, imported cabbageworms, cabbage loopers and armyworms, use 1/2 to 1 pint per acre. To control harlequin bugs, vegetable weevils, climbing cutworms and flea beetles, use 1 pint per acre. Rates above 1/2 pint should not be applied to cabbage closer than 10 days until harvest.

ROMAN CABBAGE — To control aphids, use 1 pint per acre.

LETTUCE (Head) — To control aphids, cabbage loopers, imported cabbageworms, banded cucumber beetles, Lygus bugs, webworms and armyworms up to third instar, use 1/2 to 1 pint per acre. To control six spotted leafhoppers, use 1/2 pint per acre. For harlequin bugs, vegetable weevils and leaf miners, use 1 pint per acre. To control garden symphylans, broadcast 1 1/2 gallons per acre just prior to planting and thoroughly incorporate into upper 6 to 9 inches of soil.

MELONS — For squash vine borers, leaf miners and false chinch bugs, use 1/2 pint per acre. For aphids, leafhoppers, cucumber beetles, pickleworms and mites, use 1/2 to 1 pint per acre. To control thrips, squash bugs and stink bugs, use 1 pint per acre.

RUTABAGAS — To control aphids, cabbage loopers and climbing cutworms, use 1 pint per acre.

DO NOT APPLY WITHIN 5 DAYS OF HARVEST ON THE FOLLOWING CROP

POTATOES — To control aphids, blister beetles, Colorado potato beetles, leaf miners, mites, plant bugs, potato psyllid, thrips, vegetable weevils and grasshoppers, use 1/2 to 1 pint per acre. For army worms, cabbage loopers, and climbing cutworms, use 1/2 pint per acre. For leafhoppers, stink bugs and flea beetles, use 1 pint per acre.

MISCELLANEOUS

CABBAGE — For application to cabbage grown for seed only to control cabbage seed pod weevils, use 1 quart per acre.

CHRISTMAS TREES — To control aphids and mites, use 1/2 pint per 100 gallons of water.

HOPS — For control of hop aphids, use 1 to 1 1/2 pints per acre. For spider mites, use 1 1/2 pints per acre. Do not apply within 15 days of harvest.

SAFFLOWER — To control aphids, Lygus bugs and grasshoppers, use 1 pint per acre. Do not use parathion after flowering.

SOIL INSECTS

Keep all persons and animals out of treated areas for 48 hours.

WIREWORMS — To control on

Beans	Corn	Rutabagas
Beets	Endive	Soybeans
Broccoli	Egg Plant	Sugar Beets
Brussels Sprouts	Escarole	Sugarcane
Cabbage	Kale	Sweet Corn
Cantaloupe	Lettuce	Sweet Potatoes
Carrots	Onions	Tomatoes
Cauliflower	Peas	Turnips
Celery	Peppers	Watermelon

Broadcast 3 qt. to 1 gal. per acre on soil before planting and thoroughly work into upper 4 to 9 inches.

WIREWORMS — To control on

Tobacco

Broadcast 2 qt. per acre on soil at least 3 weeks before planting and work into top 6 to 9 inches.

WIREWORMS — To control on

Potatoes

Broadcast 1 to 1 1/2 gal. per acre on soil before planting and thoroughly work into upper 4 to 9 inches.

CORN ROOTWORMS — To control on

Peanuts

Apply 2 to 2 1/2 qt. per acre as a row soil treatment at planting or pegging time, work lightly into soil.

GARDEN SYMPHYLAN — To control on

Beans	Lettuce	Sugar Beets
Corn	Potatoes	Tomatoes

Apply 5 qt. per acre to soil surface before planting time and thoroughly work into upper 6 to 9 inches.

CUTWORMS — To control on

Corn	Cucumbers
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Broadcast 3 qt. to 1 gal. per acre before planting and thoroughly work into upper 1 to 3 inches.

WHITE GRUBS — To control on

Corn	Soybeans	Sugar Beets
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Broadcast 3 qt. to 1 gal. per acre before planting and thoroughly work into upper 4 to 6 inches.

NOTE: Consult the State Agricultural Extension Service or Experiment Station concerning specific usage, dosages and methods of application.

(EPA Reg. No. 524-132)

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