

United States Environmental Protection Agency  
Washington, D.C. 20460

Office of  
Prevention, Pesticides and  
Toxic Substances

OCT 1 1993

Morris Gaskins  
MICRO-FLO CO.  
BOX 5948  
LAKELAND FL 33807

Subject: Label Amendment Submission of 05/27/93  
in Compliance with WPS Labeling Requirements  
EPA Reg No. 51036-104  
MALATHION 5 EC

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is accepted subject to the comments listed below.

Based on your certification, the Agency has accepted only those changes to your labeling which are necessary to comply with PR Notices 93-7 and 93-11, which reflect the WPS labeling requirements of 40 CFR part 156, subpart K. Any other labeling changes submitted in connection with this amendment application and not directly related to compliance with PR Notice 93-7 or 93-11 have neither been reviewed nor accepted by the Agency. If you wish to make any such changes, you must submit a separate amendment application proposing them. If your product registration is currently suspended, acceptance of this labeling amendment does not affect the suspension in any way.

A copy of your proposed labeling stamped "Accepted with comments" is attached. Make any required changes described in the attached and send three copies of final labeling as soon as it is available to:

Document Processing Desk (FIN-LABEL)

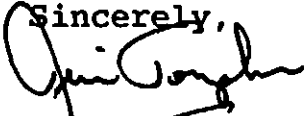
Office of Pesticide Programs (H-7504C)  
U.S. Environmental Protection Agency  
401 M Street SW  
Washington, DC 20460-0001

Hand or courier deliveries of final labels may be made to:

Document Processing Desk (FIN-LABEL)  
Room 266A Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Please correct the typographical errors circled on the draft before printing final labeling.

In your final labeling the "Agricultural Use Requirements" text must be contained in a clearly separate box. This box may be set apart by a line, by another graphical device, by a different color background, or in any other way that clearly distinguishes it from surrounding text.

Sincerely,  
  
James Tompkins, Deputy Chief  
Registration Support Branch  
Registration Division (7505U)

MICRO-FLO CO.  
MALATHION 5 EC  
51036-104 05/27/93  
Original Submission

User Safety Recommendations must either be placed in a box or printed on the label in a contrasting color from surrounding text.  
The Agricultural Use Requirements section must either be placed in a box or printed on the label in a contrasting color from the surrounding text.

There is a typographical error(s) in the User Safety Recommendations section.

Draft labeling for WPS language in response to PR 93-7

**MICRO FLO**

**MALATHION 5 EC  
ORGANOPHOSPHATE**

Malathion 5-EC is a water emulsifiable spray concentrate insecticide and miticide

**ACTIVE INGREDIENTS:**

Malathion: 0,0-dimethyl phosphorodithioate of diethyl mercaptosuccinate .....	56.00%
INERT INGREDIENTS: .....	41.00%
TOTAL .....	100.00%

(Contains 5 pounds of Malathion per gallon)

**KEEP OUT OF REACH OF CHILDREN**

**WARNING AVISO**

Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

**STATEMENT OF PRACTICAL TREATMENT  
Organophosphate**

**IF SWALLOWED:** Call a physician or Poison Control Center immediately. Drink one or two glasses of water and induce vomiting by touching the back of throat with finger. Repeat until vomit fluid is clear. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF INHALED:** Remove victim to fresh air. Apply artificial respiration if indicated.

**IF ON SKIN:** Remove contaminated clothing and wash affected areas with soap and water.

**IF IN EYES:** Flush eyes with plenty of water. Call a physician if irritation persists.

**NOTE TO PHYSICIAN:** This product may cause cholinesterase inhibition. Atropine is antidotal. 2-PAM may be effective as an adjunct to atropine.

See Additional Precautionary Statements Inside  
This product is an organophosphorus ester that inhibits cholinesterase.

EPA Reg. No. 51036-104

EPA Est. No. 51036-GA-1

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

OCT 1 1985

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
51036-104

Manufactured By  
MICRO FLO COMPANY  
P.O. BOX 5948  
LAKELAND, FLORIDA 33807

**PRECAUTIONARY STATEMENTS**  
**Hazards To Humans And Domestic Animals**

**WARNING**

Harmful if swallowed. Avoid contact with skin. Avoid breathing of spray mist. Avoid contamination of feed and foodstuff. Keep out of reach of children. Keep container closed and away from heat and open flame. Do not combine emulsifiable liquids with wettable powders in the same spray tank unless previous use of the materials being combined has proven them to be physically compatible.

**PERSONAL PROTECTIVE EQUIPMENT**

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

Applicators and other handlers must wear:

1. Long-sleeved shirt and long pants
2. Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or viton
3. Shoes plus socks
4. Chemical-resistant headgear for overhead exposure

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

**USER SAFETY RECOMENDATIONS**

Users should:

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

thoroughly and change into clean clothing

#### ENVIRONMENTAL HAZARDS

##### OUTDOOR USE ON NONAQUATIC SITES:

This pesticide is toxic to fish, aquatic invertebrates, and aquatic life stages to amphibians. Do not apply directly to water or wetlands, (i.e., swamps, bogs, marshes, and potholes). Drift and runoff may be hazardous to aquatic organisms in areas near the application site. Do not contaminate water when disposing of equipment washwaters. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

##### ON AQUATIC SITES:

This pesticide is toxic to fish, aquatic invertebrates, and aquatic life stages of amphibians. Do not apply directly to water except as specified on this label. Do not contaminate water when disposing of equipment washwaters.

##### INDOOR USE:

Use only with adequate ventilation. After using this product indoors, ventilate thoroughly before occupying enclosed spaces.

#### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame. Do not store at temperatures below freezing, as such low temperatures may be harmful to this product.

#### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

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

1. Coveralls
2. Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or viton
3. Shoes plus socks
4. Chemical-resistant headgear for overhead exposure

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements of this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep children, pets, and other unprotected persons out of treated areas until sprays have dried.

#### CHEMIGATION PROHIBITION

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

#### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage or disposal. Do not store under conditions which might adversely affect the container or its ability to function properly. **STORAGE:** Do not store below temperature of 9 degrees F. If frozen, warm to 40 degrees F, and redissolve before using by rolling or shaking the container. Keep container tightly closed when not in use. Reduce stacking height where local conditions can affect package strength. Personnel should use clothing and equipment consistent with good pesticide handling.

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

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

For proper mixing, the spray tank should be at least 3/4 filled

with water before Malathion 5EC formulation is added. Mechanical agitation or recirculation through the pump by-pass to the tank is usually sufficient for maintaining a good dispersion. Rinse empty container with water and drain into spray tank - repeat twice more. Repeat applications should be made as needed unless otherwise indicated. Consult your State Experiment Station as to the timing of applications.

**NOTE:** The U.S. Food and Drug Administration has set official tolerances for certain pesticide residues. In order that residues on food and forage crops will not exceed established tolerances, use only at recommended rates, and do not apply closer to harvest than specified.

## DIRECTIONS FOR USE

### VEGETABLES

Apply in a minimum of 30 gallons by ground equipment or 5 gallons by air equipment unless otherwise specified. Best results are obtained with uniform coverage.

#### ASPARAGUS:

Asparagus aphid, Asparagus beetle - 2 pints. Thrips - 1 1/2 to 2 pints per acre. Do not apply within 1 day of harvest.

**BEANS (Green Beans, Lima Beans, Navy Beans, Red Kidney Beans, Snap Beans, Wax Beans, Cowpeas and Blackeyed Peas):**

Aphids, Bean leaf beetles, Blister beetles, Cucumber beetles, Potato leafhoppers, Lygus bugs - 2 pints per acre.

Japanese beetle, Mexican bean beetle - 1 1/2 to 2 pints per acre.

Red Spider mites - 1 1/2 pints per acre.

Do not apply within 1 day of harvest.

**DRY BEANS (California and Northwest only):**

Lygus bugs - 1 1/2 to 2 pints per acre, 1 1/2 pints per acre (air) in 10 gallons of water. Do not apply within 1 day of harvest.

**BEETS (Garden and Table):**

Aphids - 1 1/2 to 2 pints per acre. Do not apply within 3 days of harvest.

**BRUSSELS SPROUTS:**

Aphids - 1 to 2 pints per acre. Do not apply within 7 days of harvest.

**CABBAGE:**

APHIDS, CABBAGE LOOPER, IMPORTED CABBAGEWORM - 1 TO 2 PINTS PER ACRE.

DIAMONDBACK MOTH, WEBWORM - 2 PINTS PER ACRE.

DO NOT APPLY WITHIN 7 DAYS OF HARVEST.

FOR CONTROL OF CATERPILLARS ON SUMMER AND FALL PLANTINGS IN THE SOUTH, BEGIN WHEN TRUE LEAVES APPEAR. ON OTHER PLANTINGS, AND FOR



**CONTROL OF OTHER INSECTS, BEGIN WHEN INSECTS APPEAR.****CARROTS:**

Aphids - 1 1/2 to 2 pints per acre.

Leafhopper - 2 1/2 pints per acre.

Do not apply within 7 days of harvest.

**CAULIFLOWER:**

Diamondback moth - 2 to 4 pints.

Aphids - 1 to 2 pints.

Do not apply within 7 days of harvest.

**CELERY, ANISE:**

Aphids, Spider mites - 1 1/2 pints per acre. To be applied to fresh leaves and stalks only. Do not use on crops grown for seed and oil. Do not apply within 7 days of harvest.

**COLLARDS:**

Aphids - 1 1/2 to 2 pints per acre.

Harlequin cabbage bug - 1 pint per acre. Do not apply within 7 days of harvest. For control of caterpillars on summer and fall plantings in the South, begin when true leaves appear. On other plantings, and for control of other insects, begin when insects appear.

**CUCUMBERS:**

Aphids, Pickleworms, Spider mites - 1 1/2 to 2 pints per acre.

Squash vine borer - 3 pints per acre.

Cucumber beetle, Leaf miner - 2 pints per acre. Do not apply to cucumbers unless plants are dry. Do not apply within 1 day of harvest.

**DANDELION, PARSLEY, PARSNIP, SWISS CHARD, WATERCRESS:**

Aphids - 1 1/2 to 2 pints. Do not apply within 21 days of harvesting parsley or within 7 days of harvesting dandelion, parsnip, Swiss chard or watercress.

**EGGPLANT:**

Aphids, Spider mites - 1 pint per acre.

Lacebugs - 3 pints per acre. Do not apply within 3 days of harvest.

**ENDIVE:**

Aphids, Spider mites - 1 1/2 to 2 pints per acre. Do not apply within 7 days of harvest.

**GARLIC, SHALLOTS:**

Aphids, Thrips - 1 1/2 to 2 pints per acre. Do not apply within 3 days of harvest.

**HOPS:**

Aphids, Spider mites - 1 pint per acre. Do not apply within 10 days of harvest.

**KALE:**

Aphids, Cabbage looper, Imported cabbageworm - 1 to 2 pints per acre.

Webworm, Diamondback moth - 2 pints per acre. Do not apply within 7 days of harvest. For control of caterpillars on summer and fall plantings in the South, begin when true leaves appear. On other plantings, and for control of other insects, begin when insects appear.

**KOHLRABI:**

Aphids - 1 to 2 pints per acre.

Cabbage looper, Diamondback moth, Imported cabbageworm, Webworm - 2 pints per acre. Do not apply within 7 days of harvest.

**LEEKs:**

Aphids - 1 to 2 pints per acre.

Onion maggot flies - 2 1/2 pints per acre.

Thrips - 3 pints per acre. Do not apply within 3 days of harvest.

**LENTILs:**

Cowpea aphid, Pea aphid - 1 1/2 pints per acre. Do not apply within 3 days of harvest.

**LETTUCE:**

Aphids, Leafhoppers, Spider mites - 2 pints per acre.

Cabbage looper - 3 pints per acre. Do not apply within 7 days of harvesting head lettuce or within 14 days of harvesting leaf lettuce.

**MELONS (Cantaloupe, Casaba, Crenshaw, Honeydew Melons, Honey Balls, Muskmelons, Persian Melons and hybrids of these, Watermelons and their hybrids):**

Aphids, Spider mites - 1 1/2 to 2 pints per acre.

Cucumber beetles - 2 to 3 pints.

Leaf miners - 2 pints per acre. Leafhoppers - 1 1/2 to 2 pints per acre.

Pickleworms - 2 pints per acre.

Squash vine borer - 3 pints per acre. Do not apply to melons unless plants are dry. Do not apply within 1 days of harvest.

**MUSHROOMs:**

Mites, Phorid and Sciarid flies - 2 1/2 pints in 130 gallons of water; or, 2 tablespoons in 3 gallons of water per 1000 sq. ft. of bed. Make thorough applications as soon after picking as possible. Repeat applications as necessary, usually twice a week. Do not apply within 1 day of harvest.

**MUSTARDS:**

Aphids, Cabbage Looper, Imported cabbageworm - 2 pints per acre.  
 Flea beetles - 1 1/2 to 2 pints per acre. For control of caterpillars on summer and fall plantings in the South, begin when true leaves appear. On other planting, and for control of other insects, begin when insects appear. Do not apply within 7 days of harvest.

**OKRA:**

Aphids - 1 1/2 pints per acre.  
 Japanese beetle - 2 pints per acre. Do not apply within 1 day of harvest. Make no application after pods start to form.

**ONIONS:**

Onion maggots - 1 1/2 to 2 1/2 pints per acre.  
 Onion thrips - 1 1/2 to 2 pints per acre. Do not apply within 3 days of harvest.

**PEAS:**

Aphids - 1 1/2 to 2 pints per acre.  
 Grasshoppers - 2 pints per acre.  
 Leafhoppers - 1 1/4 to 4 pints per acre. Do not apply within 7 days of harvest if vines are to be fed, or within 3 days of harvest if vines are not to be fed.

**PEPPERMINT, SPEARMINT:**

Aphids, Flea beetles, Leafhoppers, Spider mites - 1 1/2 pints per acre. Do not apply within 7 days of harvest.

**PEPPERS:**

Aphids - 1 to 2 1/2 pints per acre.  
 Pepper maggots - 2 1/2 pints per acre. Do not apply within 3 days of harvest.

**POTATOES:**

Aphids, Grasshoppers, Leafhoppers - 2 pints per acre.  
 False chinch bugs - 1 1/2 pints per acre.  
 Mealybugs - 2 to 2 1/2 pints per acre. May be applied on the day of harvest.

**PUMPKINS:**

Aphids, Pickleworms, Spider mites - 2 pints per acre.  
 Leafhoppers - 1 1/2 to 2 pints per acre.  
 Cucumber beetles, Squash vine borer - 3 pints per acre. Do not apply to pumpkins unless plants are dry. Do not apply within 3 days of harvest.

**RADISH, HORSERADISH:**

Aphids - 1 1/2 to 2 pints per acre. Do not apply within 7 days of harvest.

**RICE:**

Rice leaf miner - 2 1/2 pints per acre. Make first application shortly after the first rice blades appear on the surface of the water and repeat if necessary. Do not apply within 7 days of harvest.

Rice stink bugs - 1 to 1 1/2 pints per acre. Apply by airplane in 2 gallons of water per acre during the early milk and dough stage of growing rice. Repeat applications as necessary. Do not apply within 7 days of harvest.

**RUTABAGA:**

Aphids - 1 1/2 pints per acre. Do not apply within 3 days of harvest.

**SPINACH:**

Aphids - 2 pints per acre. Do not apply within 7 days of harvest.

**SQUASH:**

Aphids, Leaf miners, Spider mites, Pickleworm - 2 pints per acre. Cucumber Beetles, Squash vine borer - 3 pints per acre. Do not apply to squash unless plants are dry. Do not apply within 1 day of harvest.

**STRAWBERRIES:**

Aphids, Spider mites - 1 1/2 pints per acre.  
Field crickets, Lygus bugs, Spittlebugs, Thrips - 1 1/2 to 3 pints per acre.  
Potato leafhopper, Strawberry leafroller, Strawberry root weevil, Whiteflies - 1 1/2 to 2 1/2 pints per acre. Do not apply within 3 days of harvest.

**SWEET CORN:**

Japanese beetle - 2 pints per acre. Do not apply within 5 days of harvest. Injury may occur in the whorl or the silks.

**SWEET POTATOES:**

Leafhoppers - 1 1/2 to 2 pints per acre.  
Morninglory leaf miner - 2 1/2 to 3 pints per acre. Do not apply within 3 days of harvest.

**TOMATOES:**

Aphids - 1 1/2 pints per acre.  
Drosophila - 2 1/2 pints per acre.  
Spider mites - 1 1/2 pints per acre. Do not apply within 1 day of harvest.  
Armyworms, Fruitworms (California only) - 2 3/4 quarts per acre. Do not apply within 3 days of harvest.

**TURNIP:**

Aphids, Cabbage looper, Imported cabbageworm - 1 to 2 pints per acre. For control of caterpillars on summer and fall plantings in the South, begin when true leaves appear. On other plantings, and

for control of other insects, begin when insects appear. Do not apply within 7 days of harvest if tops are to be used for food or feed.

#### VEGETABLES GROWN IN COMMERCIAL GREENHOUSES

Apply to give complete coverage.

##### CUCUMBERS:

Aphids, Armyworms, Cabbage loopers, Earwigs, Garden fleahoppers, Mealybugs, Spider mites, Thrips, Whiteflies - 1 1/2 to 2 pints per 100 gallons. Spray plants thoroughly. Do not apply to cucumber unless plants are dry. Do not apply within 1 day of harvest.

##### ENDIVE:

Aphids, Armyworms, Cabbage loopers, Serpentine leaf miners, Thrips, Whiteflies - 1 1/2 to 2 pints per 100 gallons. Spray plants thoroughly. Do not apply within 7 days of harvest.

##### LETTUCE:

Aphids, Armyworms, Cabbage loopers, Serpentine leaf miners, Thrips, Whiteflies - 1 1/2 to 2 pints per 100 gallons. Spray plants thoroughly. Do not apply within 14 days of harvesting leaf lettuce or within 7 days of harvesting head lettuce.

##### RADISHES:

Aphids, Flea beetles - 1 1/2 to 2 pints per 100 gallons. Spray plants thoroughly. Do not apply within 7 days of harvest.

##### TOMATO:

Aphids, Armyworms, Cabbage loppers, Cutworms, Drosophila, Garden fleahoppers, Mealybugs, Serpentine leaf miners, Spider mites, Thrips, Tomato russet mites, Whiteflies - 1 1/2 to 2 pints per 100 gallons. Spray plants thoroughly. Do not apply within 1 day of harvest.

##### WATERCRESS:

Aphids, Serpentine leaf miners, Thrips - 1 1/2 to 2 pints per 100 gallons. Spray plants thoroughly. Do not apply within 1 day of harvest.

#### FRUIT AND NUT

##### ALMONDS:

Aphids, Spider mites - 1 to 2 pints per 100 gallons, 2 to 4 pints per acre. May be applied on the day of harvest.  
Peach twig borer - 1 to 1 1/2 pints per gallon, 2 to 3 pints per acre. Apply during the petal fall period or during the period appropriate for spraying larvae of the May brood. May be applied on the day of harvest. The rates for use on almonds are based on a standard of 200 gallons per acre dilute spray for mature trees. Do not apply more than 8 lbs. actual Malathion per acre to almond

trees.

**APPLES:**

Budmoth, Forbes scale, Woolly apple aphid - 1 pint per 100 gallons, 4 pints per acre.

Eastern tent caterpillar - 1 to 1 1/2 pints per acre per 100 gallons, 4 to 6 pints per acre.

Green apple aphid, Rosy apple aphid - 1 1/2 pints per 100 gallons, 6 pints per acre.

Codling moth, Plum curculio, Red-banded leafroller - 2 pints per 100 gallons, 8 pints per acre.

Mealybug, Mites (such as Clover mite, European redmite, Twospotted spider mite, Willamette mite) - 1 to 2 pints per 100 gallons, 4 to 8 pints per acre. Do not apply within 3 days of harvest. The rates for use on apples are based on a standard of 400 gallons per acre dilute spray for mature trees pruned 20 to 22 feet high in rows 40 feet apart. Malathion 5EC may cause fruit injury to McIntosh and Cortland varieties if spray is applied within 4 weeks of harvest.

**DORMANT OR DELAYED DORMANT SPRAYS:**

Aphids, Mites, Red-banded leafrollers - 1 pint per 100 gallons plus 1 gallon superior oil. Make full coverage dormant or delayed dormant applications only.

**APRICOTS:**

Aphids, Codling moth, European fruit lecanium, Orange tortrix, Soft brown scale, Terrapin scale - 1 1/2 to 2 pints per 100 gallons, 4 1/2 to 6 pints per acre. Do not apply within 7 days of harvest. The rate for use on apricots is based on a standard of 300 gallons per acre dilute spray for mature trees.

**AVOCADO:**

Greenhouse thrips, Latania scale, Omnivorous looper, Orange tortrix, Soft brown scale - 1 1/2 pints per 100 gallons, 7 1/2 pints per acre. Do not apply within 7 days of harvest. The rate for use on apricots is based on a standard of 300 gallons per acre dilute spray for mature trees.

**BLACKBERRY, BOYSENBERRY, DEWBERRY, LOGANBERRY, RASPBERRY:**

Aphids, rose scale chafers, Japanses beetle, Leafhoppers, Mites, Thrips - 1 1/2 pints per 100 gallons, 3 pints per acre. Do not apply within 1 day of harvest. The rates for use on brambles are based on a standard of 200 gallons per acre dilute spray.

**BLUEBERRIES:**

Blueberry maggots - 1 pint per 100 gallons plus 1 1/2 quarts Staley's Sauce Base No. 7 For use in the Northeast only. Apply in 100 gallons of water per acre. Do not apply within 8 hours of harvest.

Cherry fruitworm - 1 pint per 100 gallons, 2 pints per acre. Do not apply within 1 day of harvest.

Cranberry fruitworm - 1 pint per 100 gallons, 2 pints per acre. Make first application at egg hatch and repeat applications every 4 to 5 days until a total of four applications has been made. Do not apply within 1 day of harvest.

Japanese beetle - 3/4 pint per 100 gallons, 1 1/2 pints per acre. Make application when first berries turn blue and at 10 day intervals as long as infestation persists. Do not apply within 1 day of harvest. The rates for use on blueberries are based on a standard of 200 gallons per acre dilute spray.

#### CHERRY:

Black cherry aphid, Fruit-tree leafroller - 1 1/2 pints per 100 gallons, 6 pints per acre.

Cherry fruit fly, Japanese beetle - 1 pint per 100 gallons, 4 pints per acre. Do not apply within 3 days of harvest. The rates for use on cherries are based on a standard of 400 gallons per acre dilute spray for mature trees. Do not apply more than 8 pounds of actual Malathion 5EC per acre to cherry trees. Injury may occur on certain varieties of sweet cherries, particularly in the Northwest.

#### CITRUS (Grapefruit, Kumquat, Lemon, Lime, Orange, Tangerine, Tangelo):

Black scale (single and off-brooded), California red scale, Citricola scale, Purple scale, Soft brown scale, Yellow scale - 1 to 1 1/2 pints per 100 gallons. Do not apply when trees are in bloom. Do not apply within 7 days of harvest.

Citrus red mites, Thrips - 2 1/2 pints per acre. Apply in 200 gallons of water per acre. Do not apply when trees are in bloom. Do not apply within 7 days of harvest.

Florida purple scale, Florida red scale - 2 pints per 100 gallons. The rate for use on citrus is based on a standard of 500 gallons per acre dilute spray for mature trees.

#### CURRANTS, GOOSEBERRIES:

Japanese beetles - 1 1/2 pints per 100 gallons, 3 pints per acre. Rose chafers, Mites - 1 pint per 100 gallons, 2 pints per acre. Do not apply within 3 days of harvest. The rates for use on currants and gooseberries are based on a standard of 200 gallons per acre dilute spray.

#### FIGS:

Dried fruit beetles, Vinegar flies - 2 quarts per acre plus 1 to 2 gallons unsulfured molasses. Do not apply within 3 days of harvest.

#### FILBERTS:

Apple mealybug, Eye-spotted bud moth, Filbert aphids, Tingids - 1 pint per 100 gallons, 4 pints per acre.

Scales (crawler stages) - 1 pint per 100 gallons. Do not apply within 3 days of harvest. The rates for use on filberts are based on a standard of 400 gallons per acre dilute spray for mature

trees. Do not apply more than 3 pounds of actual Malathion 5EC per acre to filbert trees.

**GRAPES:**

Leafhoppers, Spider mites - 1 1/2 pints per 100 gallons, 3 pints per acre. Do not apply within 3 days of harvest.

European fruit lecanium - 1 1/2 pints per 100 gallons. Make full coverage applications when newly hatched nymphs are migrating over vines, usually shortly after bloom. Do not apply within 3 days of harvest.

Mealybugs - 1 1/2 pints per acre. Apply in 50 to 100 gallons. Do not apply within 3 days of harvest. The rates for use on grapes are based on a standard of 200 gallons per acre dilute spray. Injury may occur on grapes of Almeria, Cardinal, Italia and Ribier varieties when sprays containing Malathion 5EC are applied after clusters appear.

**GRAPE VINES (Overwintering on nursery stock only):**

Grape phylloxera - 3 pints per 100 gallons. Remove excess soil from the roots and dip in the Malathion 5EC solution. Submerge the entire root system for 5 minutes. Keep the solution agitated at all times.

**MACADAMIA NUTS:**

Green stink bugs - 1 1/2 pints per 100 gallons. Apply when insects start to feed on the nuts and repeat as necessary. May be applied during harvest. No more than 15 pounds of actual Malathion 5EC per acre should be applied to macadamia nut trees.

**NECTARINES:**

Spider mites - 1 to 2 pints per 100 gallons, 3 to 6 pints per acre. Plum curculio - 2 pints per 100 gallons, 6 pints per acre. Do not apply within 7 days of harvest. The rates for use on nectarines are based on a standard of 300 gallons per acre dilute spray for mature trees. Malathion 5EC may cause fruit spotting on nectarines.

**PAPAYA:**

Aphids, Mealybugs - 1 1/2 to 2 pints per 100 gallons. May be applied on the day of harvest.

**PEACHES:**

Black cherry aphid, Black peach aphid, European red mite, Green peach aphid, Rusty plus aphid, Japanese beetle, Spider Mites - 1 pint per 100 gallons, 3 pints per acre.

Oriental fruit moth, Plum curculio - 2 pints per 100 gallons, 3 quarts per acre. Do not apply within 7 days of harvest.

Cottony peach scale, European fruit lecanium, Terrapin scale - 2 pints per 100 gallons. Make full coverage applications at completion of hatching, but the last of June. Do not apply within 7 days of harvest. The rates for use on peaches are based on a standard of 300 gallons per acre dilute spray for mature trees. Do



not apply more than 9 pounds of actual Malathion 5EC per acre to peach trees.

**PEARS:**

Aphids - 1 pint per 100 gallons, 3 pints per acre.

Mealybug, Mites, Pear psylla - 1 to 2 pints per 100 gallons, 3 to 6 pints per acre.

Codling moth, Fruit-tree leafroller, Plum curculio, Red-banded leafroller - 2 pints per 100 gallons, 6 pints per acre. Do not apply within 1 day of harvest. The rates for use on pears are based on a standard of 300 gallons per acre dilute spray for mature trees. Injury may occur under certain conditions in the Northeast on Bosc pears.

**PECANS:**

Aphids, Spider mites, Walnut aphid - 1 1/2 to 2 pints per 100 gallons, 7 1/2 to 10 pints per acre. May be applied on the day of harvest.

European red mite - 1 1/4 pints per 100 gallons, 6 1/4 pints per acre. Apply when buds begin to develop and repeat as necessary. May be applied on the day of harvest.

Pecan nut casebearer, Walnut husk fly - 1 1/4 pints per 100 gallons, 6 1/4 pints per acre. Apply after first generation eggs begin to hatch. May be applied on the day of harvest. The rates for use on pecans are based on a standard of 500 gallons per acre dilute spray for mature trees 25 to 35 feet high.

**PINEAPPLE:**

Mealybug - 1 pint per 100 gallons, 8 pints per acre. Do not apply within 7 days of harvest.

**PLUMS AND PRUNES:**

Mealy plum aphid, Plum curculio - 1 to 1 1/2 pints per 100 gallons, 3 pints per acre. Do not apply within 3 days of harvest. Make full coverage applications to trunks and scaffold limbs 4 times at 21 day intervals beginning with emergence in June. In Georgia, two applications each 4 weeks apart for first (April and May) and second (August and September) broods. Do not apply within 3 days of harvest. The rates for use on plums and prunes are based on a standard of 300 gallons per acre dilute spray for mature trees.

**QUINCE:**

Codling moth, Oriental fruit moth, Plum curculio - 2 pints per 100 gallons, 6 pints per acre.

Spider mites - 1 to 2 pints per 100 gallons, 3 to 6 pints per acre. Do not apply within 3 days of harvest.

Forbes scale - 1 pint per 100 gallons. Make full coverage applications when crawlers are present, about first or second cover and last half of July. Do not apply within 3 days of harvest. The rates for use on quince are based on a standard of 300 gallons per acre dilute spray for mature trees.

**WALNUTS:**

Aphids, European red mite - 1/2 pint per 100 gallons, 1 1/2 to 3 pints per acre. May be applied on the day of harvest.

Walnut husk fly - 1/2 pint per 100 gallons, 1 1/2 to 3 pints per acre. Apply with conventional sprayer. For bait sprays, combine Staley's Sauce Base No. 2 and No. 7 at the rate of 2 quarts per acre with Malathion 5EC. May be applied on the day of harvest, 3 to 4 pints per acre. Apply in 500 gallons of water per acre with air-carrier type sprayer. For bait sprays, combine Staley's Sauce Base No. 2 or No. 7 at the rate of 2 quarts per acre with Malathion 5EC. May be applied on the day of harvest.

**FIELD CROPS AND PASTURE AND RANGE GRASSES****ALFALFA:**

Alfalfa weevil larvae, Aphids, Grasshoppers, Lygus bugs, Potato leafhoppers, Spider mites, Spittlebugs, Stink bugs - 1 1/2 to 2 pints per acre.

Armyworms - 2 pints per acre.

Clover leaf weevil - 1 1/2 pints per acre.

Vetch bruchid - 2 to 2 1/2 pints per acre. Apply to alfalfa in bloom only in the evening or early morning when bees are not working in the field or are not hanging on outside of hives. May be applied on the day of harvest.

**CLOVER:**

Alfalfa weevil larvae, Aphids, Grasshoppers, Lygus bugs, Potato leafhoppers, Spider mites, Spittle bugs - 1 1/2 pints per acre. Do not apply to clover in bloom. May be applied on the day of harvest.

**CORN (Grain or Forage):**

Aphids, Corn earworm, Corn rootworm adults, Grasshoppers, Sap beetle, Thrips - 1 1/2 pints per acre.

Armyworms - 1 1/2 to 2 pints per acre. For control of corn earworm and sap beetles, begin treatments when 10% of the ears show silk. Repeat applications at 3 to 5 day intervals until 4 to 5 applications have been made. Do not apply within 5 days of harvest or forage use. Injury may occur in the whorl and silk stages with Malathion 5EC.

**COTTON:**

Brown cotton leafworm, Cotton aphid, Cotton leafworm, Cotton leafperforator, Desert spider mite, Leafhoppers, Lygus bugs, Thrips, Whiteflies - 1/2 to 2 pints per acre.

Boll weevil - 2 to 4 pints per acre. Cotton fleahoppers - 1 to 1 1/2 pints per acre. May be applied on the day of harvest. Consult local agricultural authorities for exact time of application.

Fall armyworms, Garden webworms, Grasshoppers - 1 1/2 to 3 pints. Lygus bugs, Thrips - 1 to 4 pints per acre. May be applied on the day of harvest.

**GRASSES (Barnyardgrass, Canarygrass, Fescue, Orchardgrass, Red top, Timothy, Yellow foxtail):**

Cereal leaf beetle - 1 to 1 1/2 pints per acre. May be applied on the day of harvest or grazing.

**PASTURE AND RANGE GRASS, GRASS AND GRASS HAY:**

Aphids, Grasshoppers, Leafhoppers - 1 1/2 to 2 pints per acre OR 1 1/2 pints in 1 gallon of diesel fuel oil per acre.

Armyworms - 2 pints per acre OR 1 1/2 PINTS IN 1 GALLON OF DIESEL FUEL OIL PER ACRE. MAY BE APPLIED ON THE DAY OF HARVEST OR GRAZING.

**PEANUTS:**

Potato leafhoppers, Thrips - 1 1/2 pints per acre. May be harvested or grazed on the day of application.

**SAFFLOWER:**

Aphids, Grasshoppers, Lygus bugs - 1 1/2 to 2 pints per acre. Do not apply within 3 days of harvesting seeds.

**SMALL GRAINS (Barley, Oats, Rye, Wheat):**

Cereal leaf beetle - 1 to 1 1/2 pints per acre. English grain aphids, Grasshoppers, Greenbugs - 1 1/2 pints per acre.

Winter grain mite - 2 pints per acre. Do not apply within 7 days of harvest or forage use.

**SORGHUM:**

Greenbugs - 1 1/2 pints per acre. Do not apply within 7 days of harvest or forage use.

**SOYBEANS:**

Green cloverworms, Mexican bean beetle - 3 pints per acre. Do not apply within 7 days of harvest if tops are to be used as feed or forage.

**TOBACCO:**

Aphids - 1 1/2 to 2 1/2 pints per acre. May be applied on the day of harvest. Use maximum dosage in plant beds.

**VETCH:**

Omniverous leaf tier, Pea aphid, Vetch bruchid - 1 1/2 to 2 pints per acre. May be applied on the day of harvest or grazing.

#### STORED PRODUCTS

**STORED IN-SHELL ALMONDS:**

Indian meal moth, Merchant grain beetle - 4 fl. oz. in sufficient water to treat 10,000 lbs. of almonds. Use a suitable mechanical spray applicator that regulates the rate application to the flow of the almonds. Avoid spraying with a fine mist that drifts away. Shield the nozzle against wind and air currents.

**STORED PEANUTS:**

Confused flour beetle, Flat grain beetle, Granary weevil, Indian meal moth, Lesser grain borer, Red flour beetle, Rice weevil, Rusty grain beetle, Saw-toothed grain beetle - 1 pint in 2 1/2 gallons of water OR 8 pints in 19 gallons of water.

**RESIDUAL WAREHOUSE SPRAY - BEFORE STORING PEANUTS:**

Apply as a coarse spray at the rate of 2 gallons per 1,000 sq. ft. of surface or to run-off. Clean warehouse thoroughly of trash and remains of old peanuts 1 to 2 weeks before new peanut crop is stored. Then, thoroughly spray the interior of the empty warehouse, especially cracks and protected places, treat outside walls to a height of 6 to 8 feet and the ground to a distance of 6 feet from the warehouse, 2 1/2 pints in 5 gallons of water for each 15 tons of farmers stock peanuts.

**BULK SPRAY TREATMENT - PEANUTS GOING INTO STORAGE:**

Use good spray equipment. Apply coarse spray uniformly. Preferably, use a suitable mechanical spray applicator that regulates the rate of application to the flow of peanuts. Adjust the operating pressure of spray pump and size of nozzle opening to correlate toe amount of spray delivery with the rate of flow of peanuts being treated. Avoid spraying with a fine mist that drifts away, by using low nozzle pressure. Shield the nozzle against wind and air currents.

**NONMEDICATED CATTLE FEED CONCENTRATE BLOCKS:**

Cigarette beetles - 8 pints in 25 gallons water. Before storing feed blocks thoroughly clean storage areas and remove and burn all debris and sweepings. Apply as a thorough application for a residual spray, 4 fl. oz. in 1 quart water. Treat paper on the side next to the feed concentrate at a rate of 100 mg/sq. ft., or 1 quart of diluted Malathion 5EC per 710 sq. ft.

**BAGGED CITRUS PULP, RESIDUAL WAREHOUSE SPRAY:**

Almond moth, Angoumois grain beetle, Cigarette beetle, Confused flour beetle, Flat grain beetle, Indiana meal moth, Mediterranean flour moth, Red flour beetle, Saw-toothed grain beetle - 1 pint in sufficient water to make 2 1/2 gallons of spray OR 8 pints per 19 gallons of water. Apply spray at the rate of 2 gallons per 1,000 sq. ft. of surface or to run-off. Before bagged citrus pulp is stored, thoroughly clean warehouses by removing and burning all debris and sweepings. Thoroughly spray with sufficient pressure, interior of empty warehouse (including cracks and protected places), outside walls to a height of 6 to 8 feet and ground to a distance of about 6 feet from warehouse. Do not use treated burlap bags other than for dried citrus pulp.

**STORED GRAINS (Barley, corn, grain, sorghum, oats, rice, rye, wheat, and field or garden seeds):**

Cereal leaf beetle, Confused flour beetle, Flat grain beetle, Granary weevil, Indian meal moth, Lesser grain borer, Maize weevil,

Red flour beetle, Rice weevil, Rusty grain beetle, Saw-toothed grain beetle - 8 pints per 25 gallons of water.

**RESIDUAL SPRAY BEFORE STORING GRAINS:**

Before applying spray, clean elevators, box cars, etc. thoroughly. Remove and burn all sweepings and debris. For a residual wall, floor and machinery spray in grain elevators in treating truck beds, box cars and ships holds, before loading grain make a thorough application. 1 pint in 2 to 5 gallons of water per 1,000 bushels.

**GRAINS GOING INTO STORAGE:**

Apply as the grain is being loaded or turned into final storage. 1/2 pint in 1 to 2 gallons of water per 1,000 sq. ft. of grain surface area.

**AS A SURFACE TREATMENT AFTER GRAINS ARE STORED:**

Apply the spray evenly over the surface of the grain. Apply immediately after grain is loaded into storage and repeat if necessary.

**WAREHOUSE:**

Khapra beetle - 8 pints per 20 gallons of water. Apply spray at the rate of 2 gallons per 1,000 sq. ft. of surface or to runoff. Thoroughly spray with sufficient pressure, interior of empty warehouse including cracks and protected places.

**FLY AND MOSQUITO CONTROL FLY CONTROL:**

For use in and around buildings which house domestic animals, around yards, homes and meat and food-processing plants. Do not use in edible products area of food processing plants, restaurants or other areas where food is commercially prepared or processed. Do not use in serving areas while food is exposed.

**ADULT FLIES:**

Straight Sprays: 5 tablespoons plus 1 gallon water OR 1 cup plus 2 1/2 gallons water OR 1 quart plus 12 gallons water. Apply as a spray at the rate of 1 gallon per 1,000 sq. ft. on painted surfaces and 2 gallons per 1,000 sq. ft. on unpainted surfaces where flies alight or congregate, such as walls, ceilings, stanchions, windows in dairy barns, fences, around garbage cans, etc.

**ADULT FLIES, FLY MAGGOTS:**

Bait Sprays: 5 tablespoons plus 7 tablespoons sugar or molasses (unsulfurized) or corn syrup plus 1 gallon water OR 1 cup plus 1 cup sugar or molasses (unsulfurized) or corn syrup plus 2 1/2 gallons water OR 1 quart plus 2 1/2 pounds sugar or 1 quart molasses (unsulfurized) or 1 quart corn syrup plus 12 gallons water. Apply as a bait spray over the manure or poultry droppings. In loafing sheds, spray the dry bedding within 18 inches of the walls and around upright braces. For effective control in and around dairy barns, fly-breeding sites such as manure and other

waste material, should be eliminated. Do not apply to freshly whitewashed surfaces. Wait 14 days after whitewashing before applying. Repeat applications as necessary. Avoid contamination of milk, milk equipment and water. Avoid contamination of feed and food products, also drinking fountains and feed troughs. Remove lactating dairy animals from buildings before treating. Also remove animals under one month of age before treating. Avoid applying oil based formulations to valuable ornamental plants as injury may occur.

#### MOSQUITO LARVAE:

13 fl. oz. per acre. For use in standing water (intermittently flooded areas, stagnant water, temporary rain pools). Mix in sufficient water or oil when applied by air or ground equipment.

#### MOSQUITO ADULTS:

1 part to 28 parts water, fuel oil or diesel oil. Spray building foundations, shrubs, low trees and lawn areas.

### LIVESTOCK PEST CONTROL

#### HOGS:

Lice - 1 gallon per 100 gallons of water OR 6 1/2 ozs. per 5 gallons of water. Apply complete coverage spray to animals, pens and litter. One treatment may be sufficient. Repeat only if needed. Sarcoptic mange - 1 gallon per 100 gallons of water OR 6 1/2 ozs. per 5 gallons of water. Apply complete coverage spray to all animals in herd, bedding and walls. Use extreme care to thoroughly cover all body surfaces of the animal, including inside of ears. One thorough spraying will usually control sarcoptic mange of swine, however, extensive cases will require second treatment about 10 days after first application. After spraying, swine should be kept out of sun and wind for a few hours. Residue tolerance; 4ppm in meat, fat and meat by-products. Avoid contamination of feed, food containers and watering troughs.

#### SHEEP AND GOATS:

Lice, Ticks, Keds - 1 gallon per 100 gallons of water OR 6 1/2 ozs. per 5 gallons of water. Spray animals thoroughly. Repeat application after 2 or 3 weeks if needed. Do not apply to milk goats. Do not treat animals under one month of age. Residue tolerance; 4ppm in meat, fat and meat by-products.

#### HORSES, BEEF AND NON-MILKING CATTLE:

Lice - 1 gallon per 100 gallons of water OR 6 1/2 ozs. per 5 gallons of water. Apply complete coverage spray. One treatment may be sufficient. Repeat only if needed.

#### BACKRUBBING DEVICES:

To reduce lice apply a mixture of 2% Malathion 5EC in fuel oil. There may also be a reduction in hornflies. These devices should be made continuously accessible, one to each 35-45 head of cattle. Backrubbing devices must be retreated every 2 to 3 weeks.

Ticks - 1 to 2 gallons per 100 gallons of water OR 6 1/2 to 13 ozs. per 5 gallons of water. Apply complete coverage spray. Repeat at 2 week intervals if needed.

Hornflies - 1 to 1 1/2 gallons per 100 gallons of water OR 6 1/2 to 10 ozs. per 5 gallons of water. Apply complete coverage spray. Repeat at 2 week intervals if needed. Do not apply to lactating dairy animals, or nonlactating dairy animals within 2 weeks of freshening. Do not treat animals under one month of age. Residue tolerance: 4ppm in meat, fat and meat by-products.

#### POULTRY (Chicken, Ducks, Geese, Turkeys):

Northern fowl mite, Poultry lice, Chicken red mite - 2 tbs. per 1 gallon water per 100-150 birds. Repeat application in 4-8 weeks or when necessary. As a supplement to premise treatment for chicken red mite. Northern fowl mite, Chicken body lice, Shaft lice - TAIL DIPPING - 8 1/2 ozs. per 15 gallons water per 400 birds. Hold bird by wings and dip 3 to 4 inches of tail into solution. Treat vent and surrounding areas. Repeat in 7 to 10 days if necessary. Chicken red mite, Poultry lice, Flies - PREMISE TREATMENTS - 4 tbs. per 1 gallon water. Apply liberally to litter, walls, ceilings, roost nests and adjacent areas. Force spray into cracks and crevices. Poultry ticks - PREMISE TREATMENT - 6 to 7 ozs. per 1 gallon water. Apply liberally to walls, ceilings and adjacent areas. Force spray into cracks and crevices. Chiggers - RANGE TREATMENTS - 1 to 1 1/2 pint per acre. Treat range thoroughly the day before placing poultry on range. Repeat every 2-3 weeks. Residue tolerance: 4ppm in or on meat and meat by-products. Eggs 0.1ppm (from application to poultry).

#### DOMESTIC PETS (Dogs and cats):

Fleas, Lice, Ticks - 1 oz./gal. Wet animal thoroughly. Repeat in 2 to 3 weeks if necessary. Fleas, Ticks - PREMISE TREATMENT - 5 oz./gal. Apply per 1,000 sq. ft. of surface to pet quarters, yards and lawns. Remove manure or debris before treating. Repeat treatments in 3 to 4 weeks if necessary.

#### OUTDOOR ORNAMENTALS FLOWERS, SHADE TREES, SHRUBS:

Injury may occur on Ferns, Hickory, Viburnum, Lantana, Crassula and Canareti Juniper following the use of Malathion 5EC, slight injury has also been reported on Boston, Pteris, and Maidenhair Ferns, Petunias, Small-Leaf Spirea, White Pine and Maples, under extreme heat, drought and disease conditions the emulsifiable concentrates may cause slight damage to Elms.

Aphids, Spider mites: 1 1/2 pints per 100 gallons or 2 teaspoons per gallon.

Bagworms, Birch leaf miner, Boxwood leaf miner: 2 pints per 100 gallons or 2 teaspoons per gallon.

European pine shoot moth, Four-lined leaf bug, Japanese beetle adult, Potato leafhopper, Rose leafhopper, Tarnished plant bug,

Thrips: 1 1/2 pints per 100 gallons or 2 teaspoons per gallon.

Lace bug: 1 pint per 100 gallons OR 2 teaspoons per gallon.

Mealybugs, Whiteflies: 1 1/2 pints per 100 gallons or 2 teaspoons

per gallon.

Oak kemes: 2 pints per 100 gallons or 2 teaspoons per gallon. Apply when scale crawlers have settled on foliage.

Tent caterpillar: 2 pints per 100 gallons or 2 teaspoons per gallon.

Oyster shell scale: 1 pint per 100 gallons or 2 teaspoons per gallon. Apply when scale crawlers have settled on foliage.

Euonymus scale, Scurfy scale: 1 1/2 pint per 100 gallons or 2 teaspoons per gallon.

Azalea scale, Magnolia scale, Pine leaf scale: 2 pints per 100 gallons or 2 teaspoons per gallon.

Fletcher scale: 2 pints per 100 gallons or 2 teaspoons per gallon. Apply when scale crawlers have settled on foliage.

Florida red scale, Juniper scale: 2 pints per 100 gallons or 2 teaspoons per gallon. Apply when scale crawlers have settled on foliage.

Black scale crawlers, Soft brown scale: 2 1/4 pints per 100 gallons; or 2 teaspoons per gallon.

Monterey pine scale: 2 1/2 pints per 100 gallons or 2 teaspoons per gallon.

Pine needle scale: 4 pints per 100 gallons or 4 teaspoons per gallon.

Wax scale: 4 pints per 100 gallons or 4 teaspoons per gallon. Apply in spring when crawlers are active. Repeat 1 or 2 full-coverage applications at 10 day intervals.

#### FOREST TREES

**DECIDUOUS (Forest and Shade trees):**

Tent caterpillar - 2 pints/100 gallons water. Make thorough coverage application before larvae reach third instar.

**PINES:**

Pine needlesheath miner - 1 1/2 pints/acre. Apply by ground or aircraft equipment in 25 gallons of water. Make application when air is calm and temperature is below 68 degrees F. Apply when 75% of larvae have left overwintering mines.

**EASTERN PINES:**

Pine tortoise scale - 1 1/2 pints/acre. Apply by aircraft in 2 gallons of water per acre when crawlers emerge. Repeat application in 1 week under conditions of heavy infestations. Make application when air is calm and temperature is below 68 degree; F.

**RED PINE:**

Red-headed pine sawfly - 0.8 pints/acre. Apply by mist blower in 2 gallons of water per acre when egg hatch is complete.

**IN AND AROUND GREENHOUSES AND GARDENS:**

Millipedes, Sawbugs, Springtails - 1 teaspoon/gallon. Apply to 150 square feet of soil surface or where insects congregate. Repeat at 7 to 10 day intervals as needed.



**IN AND AROUND HOMES:**

Bedbugs - 2 to 5 tablespoons per gallon of deodorized kerosene - Apply lightly to all mattress surfaces in sufficient quantity to "mist" the fabric and generously to beds and woodwork, with special care taken to wet all possible hiding places.

**LAWNS:**

Ant mounds - 1 1/2 pints/100 gallons. Spray ant hills thoroughly so that they are well soaked. For other small ants in flower beds, lawns, around trees, spray lightly in the infested areas. Repeat in 10 to 15 days if ants return.

Ground pearls - 3 to 4 quarts/100 gallons. Make full coverage to soil surface when ground pearl nymphs are in the pink, "crawler" or active stage and immediately wash into soil with additional water.

**ON AND AROUND CULL FRUIT AND VEGETABLE DUMPS**

Drosophila flies, Dried fruit beetles: 1 1/2 gallons per 100 gallons water. Apply as a drench using 8 to 10 gallons of spray per 100 sq. ft. For best results, dumps should not be over 18 inches deep.

DO NOT FEED TREATED FRUIT AND VEGETABLES.

**IN AND AROUND WINERIES AND PROCESSING PLANTS**

Drosophila flies: 3 1/2 oz. in 1 qt. water. Paint all doors and window screens. AVOID CONTAMINATION OF WINE, FOOD, UTENSILS, EQUIPMENT AND WATER.

**PLANTS PROCESSING DRY MILK**

Black carpet beetles, Trogodema species: 1 pint per 2 1/2 gallons. Clean premises thoroughly before applying and maintain good sanitation at all times. Use spray equipment and nozzles that will produce a coarse spray. Application must be made only by an experienced or trained person. Apply as a residual spray to all sections of the plant and warehouses where insects hide or crawl such as cracks, corners, edges of floors, lower parts of walls, floors under utensils, work surfaces, containers and liners. Repeat application as necessary.

CAUTION: Malathion 5EC sprays may damage finished surfaces and fabrics. Avoid contamination of food, utensils, milk, milk equipment, and water. Do not use in milk processing rooms.

**CRACK AND CREVICE TREATMENT IN FOOD HANDLING ESTABLISHMENTS****IN FOOD AREAS:**

Includes areas for receiving, serving, storage, packing (canning, bottling, wrapping, boxing), preparing, edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups). Ants, Carpet beetles, Cigarette beetles, Clover mites, Confused flour beetles, Crickets, Drug store beetles, Flat grain beetles, Granary weevils, Indian meal moths, Red flour beetles, Rice weevils, Roaches, Rusty grain beetles, Sawtoothed grain beetles,

Silverfish, Spiders: 1 pint/ 2 1/2 gallons or 1 part in 19 parts mixture of 4 parts kerosene-type solvent and 1 part aromatic hydrocarbon-type solvent. Apply in small amounts directly into cracks and crevices using a pin stream of insecticide into points such as expansion joints between different elements of constructions or between equipment bases and the floor, wall voids, motor housing, junction boxes or switch boxes, conduits or hollow equipment legs where the named insects hide. Care should be taken to avoid depositing the product onto exposed surfaces or introducing the material into the air. Avoid contamination of food or food processing surfaces. Repeat application as necessary. Application must be made only by a commercial pest control operator.

IN NONFOOD AREAS: Includes garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage. Ants, Carpet beetles, Cigarette beetles, Clover mites, Confused flour beetles, Crickets, Drug store beetles, Flat grain beetles, Granary weevils, Indian meal moths, Red flour beetles, Rice weevils, Roaches, Rusty grain beetles, Sawtoothed grain beetles, Silverfish, Spiders: 1 pint/2 1/2 gallons or 1 part in 19 parts mixture of 4 parts kerosene-type solvent and 1 part aromatic hydrocarbon-type solvent. Apply as a coarse spray to baseboard areas, around water pipes, surfaces behind and beneath stinks, lockers, tables, pallets and similar area where insects hide or through which they may enter. Repeat application as necessary. Application must be made only by a commercial pest control operator.

#### CONDITIONS OF SALE

All statements concerning the use of this product apply only when used as directed.

THE MANUFACTURER MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THIS PRODUCT OR ITS USE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE LABEL.

Read all directions carefully.