

1015-66

1/7/2000

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

S568937

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Ms. Roberta M. Holt
Secretary
Douglas Products and Packaging Company
1500 E. Old 210 Hwy.
Liberty, MO 64068

Dear Ms. Holt:

Subject: Douglas Malathion 57 WE
EPA Reg. No. 1015-66
Labeling Submitted September 13, 1999

The labeling amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, As Amended (FIFRA), is acceptable, provided that you:

Submit one copy of your final printed label incorporating the following corrections before you release the product for shipment.

1. In the section headed, PERSONAL PROTECTIVE EQUIPMENT, add the sentences cited below as the first two sentences in this section. Refer to item 1.a. in the previous letter of June 18, 1999.

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

2. Correct the statement in item B. in the PERSONAL PROTECTIVE EQUIPMENT section by adding the word, "or" between the words, Laminate and Butyl so that the statement reads as cited below.

B. Chemical resistant gloves such as Barrier Laminate, or Butyl Rubber, or Nitrile Rubber, or Viton.

3. In the last sentence of the STORAGE AND DISPOSAL section, correct the word, dumping to burning so that the sentence reads as cited below.

GENERAL: Consult Federal, State or local authorities for approved alternative procedures such as open burning.

4. Add the designation, organophosphate and place it either near the product name or immediately under the heading, FIRST AID. Refer to the enclosed copy of 40 CFR section 156.206 (c) regarding this requirement.

5. Correct the front panel Spanish warning statement to read as specified in the attached copy of section 156.206(e).

If this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product bearing the amended label constitutes acceptance of this condition.

A stamped copy of the label is enclosed for your records.

Your Confidential Statement of Formula (CSF) dated September 10, 1999 is acceptable. subject to the correction cited below. Please submit a corrected CSF for our files.

The upper and lower limits for the components reported in items 14 a. and 14 b. are reversed.

Sincerely,



Marilyn A. Mautz
Biologist
Insecticide-Rodenticide Branch
Registration Division (7504C)

3 of 21

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JAN 7 2000

Under the Federal Insecticide,
Fungicide, and Herbicide Act
as amended, for the pesticide
registered under EPA #
1015-66

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
WARNING**

Harmful if swallowed, inhaled or absorbed through the skin. Causes eye irritation. May be a skin sensitizer. Keep container closed. Use with adequate ventilation. Avoid breathing spray mist. Avoid contact with skin or clothing. Wash skin thoroughly after handling. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:
A. Long-sleeved shirt and long pants.
B. Chemical resistant gloves such as Barrier Laminate, Butyl Rubber, or Nitrile Rubber, or Viton.
C. Shoes plus socks.
D. Protective eyewear.
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 or maintaining PPE. If no such instructions for washable, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

User Should:
A. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
B. Remove PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, aquatic invertebrates, and aquatic life stages of amphibians. For terrestrial use, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. 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.

PHYSICAL OR CHEMICAL HAZARDS

Flammable: Do not use or store near heat sources or open flame. Do not use in the vicinity of pilot lights.

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

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

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

GENERAL: Consult Federal, State or local authorities for approved alternative procedures such as limited open dumping.

NOTE TO PHYSICIANS: In case of emergency, call CHEMTREC - (800) 424-9300.

KEEP FROM FREEZING



FORMULATED WITH	ACTIVE INGREDIENTS:	
FEANON® TECHNICAL	Malathion (0,0-dimethyl dithiophosphate of	
INSECTICIDE	diethyl mercaptosuccinate)*	57.0
THE	INERT INGREDIENTS:	
PREMIUM	TOTAL	43.0
GRADE		100.0
MALATHION	CONTAINS PETROLEUM DISTILLATES	

*Equivalent to 5 lbs. of premium grade malathion per gallon.

KEEP OUT OF REACH OF CHILDREN

WARNING ! / AVISO !

PRECAUCION AL USUARIO: Si usted no lee ingles, no use esto producte hasta que la etiqueta le haya sido explicada ampliamente.

FIRST AID

IF SWALLOWED: Do not induce vomiting. Get medical attention!
IF IN EYES: Immediately flush eyes and skin with plenty of water for atleast 15 minutes. Call a physician.
IF ON SKIN: Immediately wash with plenty of soap and water, while removing contaminated clothing and shoes. Get medical attention.
IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.
Note to Physicians: This product is a cholinesterase inhibitor. Atropine is antidotal. 2-PAM may be effective as a adjunct to atropine.

SEE SIDE PANELS FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No. 1015-66

EPA Est. No. 1015-MO-1



Net Contents

Gallon

DOUGLAS PRODUCTS & PACKAGING
Liberty, Missouri 64068

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.

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

AGRICULTURAL USE REQUIREMENTS

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

- * Coveralls
- * Chemical resistant gloves, such as Barrier Laminate, or Butyl Rubber, or Nitrile Rubber, or Viton
- * Shoes plus socks
- * Protective eye wear

DISCLAIMER

CONDITIONS OF SALE: This product is sold subject to and buyer and user are deemed to have accepted the terms contained in the CONDITION OF SALE AND WARRANTY, DIRECTIONS FOR USE AND PRECAUTIONARY STATEMENTS.

WARRANTY STATEMENT

DOUGLAS PRODUCTS & PACKAGING warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the DIRECTIONS FOR USE. DOUGLAS PRODUCTS & PACKAGING MAKES NO OTHER EXPRESSED OR IMPLIED WARRANTY OF FITNESS OR MERCHANT ABILITY OR ANY OTHER EXPRESSED OR IMPLIED WARRANTY.

LIMITATION OF LIABILITY

In no case shall DOUGLAS PRODUCTS & PACKAGING or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product. No claim of any kind shall be greater in amount than the purchase price of the product in respect of which such damages are claimed. USER ASSUMES THE RISK OF ANY USE CONTRARY TO LABEL INSTRUCTIONS.

50721

ACCEPTED
with COMMENTS
in EPA Letter 10/16/66

JAN 7 2000

(The Product is active,
safe, and effective. No
amended for the purpose
under EPA Reg. No.
1015-66

DOUGLAS MALATHION 57-WE

EMULSIFIABLE CONCENTRATE PREMIUM GRADE

FORMULATED WITH
FyFANON® TECHNICAL
INSECTICIDE
THE
PREMIUM
GRADE
MALATHION

ACTIVE INGREDIENTS:

Malathion (0,0-dimethyl dithiophosphate of
diethyl mercaptosuccinate)*.....57.00%

INERT INGREDIENTS:

.....43.00%
TOTAL.....100.00%

CONTAINS PETROLEUM DISTILLATES

*Equivalent to 5 lbs. of premium grade malathion per gallon.

KEEP OUT OF REACH OF CHILDREN

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preferably mouth-to-mouth. Get medical attention.

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SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No. 1015-66

EPA Est. No. 1015-MO-1



DOUGLAS PRODUCTS & PACKAGING

1550 E. Old 210 Hwy.
Liberty, Missouri 64068-9459

SLG-9/99

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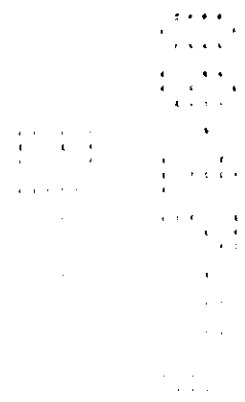
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LIMITATION OF LIABILITY

In no case shall DOUGLAS PRODUCTS & PACKAGING or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product. No claim of any kind shall be greater in amount than the purchase price of the product in respect of which such damages are claimed. USER ASSUMES THE RISK OF ANY USE CONTRARY TO LABEL INSTRUCTIONS.

In case of an emergency endangering life or property involving this product, call CHEMTREC (800) 424-9300 day or night

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.

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

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.

Crop	Pests Controlled	Rate/A	Interval (Days) Between Last Application and Harvest	
Beans ~Green Beans ~Lima Beans ~Navy Beans ~Red Kidney Beans ~Snap Beans ~Wax Beans ~Cowpeas ~Blackeye Peas	Aphids	2 pts	Do not apply within 1 day of harvest.	
	Bean leaf beetles			
	Blister beetles			
	Cucumber beetles			
	Potato leafhoppers	1 1/2 - 2 pts	Do not feed or graze by livestock.	
	Lygus bugs			
	Japanese beetle			
	Mexican bean beetle	1 1/2 - 2 pts		
Red Spider mites	1 1/2 pts			
Dry Beans ~California and Northwest only	Lygus bugs	1 1/2 - 2 pts ground		Do not apply within 1 day of harvest. Do not feed or graze by livestock.
		1 1/2 pts (air) in 10 gallons of water		
Beets ~Garden ~Table	Aphids	1 1/2 - 2 pts.		Do not apply within 7 days of harvest if tops are to be used as food or feed.
Broccoli	Aphids	1 - 2 pts.	Do not apply within 3 days of harvest.	
	Cabbage looper			
Brussels Sprouts	Imported cabbageworm			
	Aphids	1 - 2 pts.	Do not apply within 7 days of harvest.	
Cabbage	Aphids	1 - 2 pts.	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.	
	Cabbage looper			
	Imported cabbageworm			
	Diamondback moth	2 pts.		
Webworm				
Cauliflower	Aphids	1 - 2 pts.	Do not apply within 7 days of harvest.	
	Diamondback moth	2 - 4 pts.		

Crop	Pests Controlled	Rate/A	Interval (Days) Between Last Application and Harvest
Celery ~Anise	Aphids Spider Mites	1 1/2 pts.	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 - 2 pts.	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.
	Harlequin cabbage bug	1 pt.	
Cucumbers	Aphids Pickleworms Spider mites	1 1/2 - 2 pts.	Do not apply to cucumbers unless plants are dry. Do not apply within 1 day of harvest.
	Squash vine borer	3 pts.	
	Cucumber beetle		
	Leaf miner	2 pts.	
Dandelion ~Parsley ~Parsnip ~Swiss Chard ~Watercress	Aphids	1 1/2 - 2 pts.	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 pts.	Do not apply within 3 days of harvest.
	Lacebugs	3 pts.	
Endive	Aphids Spider mites	1 1/2 - 2 pts.	Do not apply within 7 days of harvest.
Garlic ~Shallots	Aphids Thrips	1 1/2 - 2 pts.	Do not apply within 3 days of harvest.
Hops	Aphids Spider mites	1 pt.	Do not apply within 10 days of harvest.
Kale	Aphids Cabbage looper Imported cabbageworm	1 - 2 pts.	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.
	Diamondback moth Webworm	2 pts.	

Crop	Pests Controlled	Rate/A	Interval (Days) Between Last Application and Harvest
Kohlrabi	Aphids	1 - 2 pts.	Do not apply within 7 days of harvest.
	Cabbage looper Imported cabbageworm Diamondback moth Webworm	2 pts.	
Leeks	Aphids	1 1/2 - 2 pts.	Do not apply within 3 days of harvest.
	Onion maggot flies	2 1/2 pts.	
	Thrips	3 pts.	
Lentils	Cowpea aphid Pea aphid	1 1/2 pts.	Do not apply within 3 days of harvest. Do not feed or graze by livestock.
Lettuce ~Head ~Leaf	Aphids Leafhoppers Spider mites	2 pts.	Do not apply within 7 days of harvesting head lettuce or within 14 days of harvesting leaf lettuce.
	Cabbage looper	3 pts.	
Mushrooms	Mites Phorid Sciarid flies	2 1/2 pts in 130 gallons of water; or 2 tablespoons in 3 gallons of water per 1,000 square foot 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 ~Greens	Aphids Cabbage looper Imported Cabbageworm	2 pts.	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.
	Flea beetles	1 1/2 - 2 pts.	
Okra	Aphids	1 1/2 pts.	Do not apply within 1 day of harvest. Make no application after pods start to form.
	Japanese beetle	2 pts.	
Onions ~Bulb & Green	Onion maggots	1 1/2 - 2 1/2 pts.	Do not apply within 3 days of harvest.
	Onion thrips	1 1/2 - 2 pts.	
Peas	Aphids	1 1/2 - 2 pts.	Do not apply within 7 days of harvest. Do not feed or graze by livestock.
	Grasshoppers	2 pts.	
	Leafhoppers	1 1/4 - 4 pts.	
Peppermint ~Spearmint	Aphids Flea beetles Leafhoppers Spider mites	1 1/2 pts.	Do not apply within 7 days of harvest.
Peppers ~Bell	Aphids	1 - 2 1/2 pts.	Do not apply within 3 days of harvest.
	Pepper maggots	2 1/2 pts	

Crop	Pests Controlled	Rate/A	Interval (Days) Between Last Application and Harvest
Potatoes ~White ~Red	Aphids Grasshoppers Leafhoppers	2 pts.	May be applied on the day of harvest.
	False chinch bugs	1 1/2 pts.	
	mealybugs	2 - 2 1/2 pts.	
Radish ~Horseradish	Aphids	1 1/2 - 2 pts.	Do not apply within 7 days of harvest.
Rice	Rice leaf miner	2 1/2 pts.	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. Broadcast use for Rice leaf miner and Rice stink bugs only over intermittently flooded areas. Applications may not be made around bodies of water where fish or shellfish are grown and/or harvested commercially.
	Rice stink bugs	1 - 1 1/2 pts.	Apply by airplane in 2 gallons of water per acre during the early milk and dough stage of growing rice. Repeat as needed. Do not apply within 7 days of harvest.
Rutabaga	Aphids	1 1/2 pts.	Do not apply within 3 days of harvest.
Spinach	Aphids	2 pts.	Do not apply within 7 days of harvest.
Squash	Aphids Leaf miners Spider mites Pickleworm	2 pts.	Do not apply to squash unless plants are dry. Do not apply within 1 day of harvest.
	Cucumber beetles Squash vine borer	3 pts.	
Strawberries ~Excluding Soil incorporated	Aphids Spider mites	1 1/2 pts.	Do not apply within 3 days of harvest.
	Field Crickets Lygus bugs Spittlebugs Thrips	1 1/2 - 3 pts.	
	Potato Leafhopper Strawberry Leafroller Strawberry root weevil Whiteflies	1 1/2 - 2 1/2 pts.	

Crop	Pests Controlled	Rate/A	Interval (Days) Between Last Application and Harvest
Sweet Corn	Japanese beetle	2 pts.	Do not apply within 5 days of harvest. Injury may occur in the whorl or to the silks.
Sweet Potatoes	Leafhoppers	1 1/2 - 2 pts.	Do not apply within 3 days of harvest.
	Morninglory leaf miner	2 1/2 - 3 pts.	
Tomatoes	Aphids	1 1/2 pts.	Do not apply within 1 day of harvest.
	Drosophila	2 1/2 pts.	
	Spider mites	1 1/2 pts.	
	Amyworms Fruitworms (California Only)	2 3/4 pts.	Do not apply within 3 days of harvest.
Turnip	Aphids Cabbage looper Imported cabbageworm	1 - 2 pts.	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.

Fruit And Nut:

Crop	Pests Controlled	Rate/ 100 gals.	Rate/A	Interval (Days) Between Last Application and Harvest
Apricots	Aphids Codling moth European fruit lecanium Orange tortrix Soft brown scale Terrapin scale	1 1/2 - 2 pts.	4 1/2 - 6 pts.	Do not apply within 7 days of harvest.
	The rates for use on apricots is based on a standard of 300 gal./acrea dilute spray for mature trees.			
Avocados	Greenhouse thrips Latania scale Omnivorous looper Orange tortrix Soft brown scale	1 1/2 pts.	7 1/2 pts.	Do not apply within 7 days of harvest.
	The rates for use on avocado is based on a standard of 500 gal./acre dilute spray for mature trees.			

Crop	Pests Controlled	Rate/ 100 gals.	Rate/A	Interval (Days) Between Last Application and Harvest
Blackberries ~Boysenberries ~Dewberries ~Loganberries ~Raspberries	Aphids Rose scale chafers Japanese beetle Leafhoppers Mites Thrips	1 1/2 pts.	3 pts.	Do not apply within 1 day of harvest.
	The rates for use on brambles are based on a standard of 200 gal./acre dilute spray.			
Blueberries	Blueberry maggots	1 pt. plus 1 1/2 qts. Staley's Sauce Base #7	-	For use in the Northeast only. Apply in 100 gallons of water per acre. Do not apply within 8 days of harvest.
	Cherry fruitworm	1 pt.	2 pts.	Do not apply within 1 day of harvest.
	Cranberry fruitworm	1 pt.	2 pts.	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 pts.	1 1/2 pts.	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 gal./acre dilute spray.				
Cherries ~Sweet ~Tart	Black cherry aphids			Do not apply within 3 days of harvest.
	Fruit-tree leafroller	1 1/2 pts.	6 pts.	
	Cherry fruit fly			
	Japanese beetle	1 pt.	4 pts.	
The rates for use on cherries are based on a standard of 400 gal./acre dilute spray for mature trees. Do not apply more than 8 lbs. of actual DOUGLAS 57% MALATHION per acre to cherry trees.				
Injury may occur on certain varieties of sweet cherries, particularly in the Northwest.				

Crop	Pests Controlled	Rate/ 100 gals.	Rate/A	Interval (Days) Between Last Application and Harvest
Citrus ~Grapefruit ~Kumquat ~Lemon ~Lime ~Orange ~Tangerine ~Tangelo	Black scale (single and off-brooded)	1 - 1 1/2 pts.	-	Do not apply when trees are in bloom. Do not apply within 7 days of harvest.
	California red scale			
	Citricola scale	2 pts.	-	
	Purple scale			
Soft brown scale	-	2 1/2 pts.	Apply in 200 gallons of water per acre. Do not apply when trees are in bloom. Do not apply within 7 days of harvest.	
Yellow scale				
	Florida purple scale			
	Florida red scale			
	Citrus red mites			
	Thrips			
The rates for use on citrus is based on a standard of 500 gal./acre dilute spray for mature trees.				
Currants ~Gooseberries	Japanese beetles	1 1/2 pts.	3 pts.	Do not apply within 3 days of harvest.
	Rose chafers mites	1 pt.	2 pts.	
The rates for use on currants and gooseberries are based on a standard of 200 gls./acre dilute spray.				
Figs	Dried fruit beetles	-	2 qts plus 1 -2 gals. unsulfured molasses	Do not apply within 3 days of harvest.
	Vinegar flies			
Grapes	Leafhoppers	1 1/2 pts.	3 pts.	Do not apply within 3 days of harvest.
	Spider mites			
	European fruit lecanium	1 1/2 pts.	-	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 pts.	Apply in 50-100 gallons of water per acre. Do not apply within 3 days of harvest.
The rates for use on grapes are based on a standard of 200 gal./acre dilute spray.				
Injury may occur on grapes of Almeria, Cardinal, Italia and Ribier varieties when sprays containing DOUGLAS 57% MALATHION are applied after clusters appear.				
Grape Vines (Overwintering on nursery stock only)	Grape phylloxera	3 pts.	-	Remove excess soil from the roots and dip in the DOUGLAS 57% MALATHION solutions. Submerge the entire root system for 5 minutes. Keep the solution agitated at all times.

Crop	Pests Controlled	Rate/100 gals.	Rate/A	Interval (Days) Between Last Application and Harvest	
Macadamia Nuts	Green stink bugs	1 1/2 pts.	-	Apply when insects start to feed on the nuts and repeat as necessary. May be applied during harvest.	
	No more than 15 lbs. of actual DOUGLAS 57% MALATHION per acre should be applied to macadamia nut trees.				
Nectarines	Spider mites	1 - 2 pts.	3 - 6 pts.	Do not apply within 7 days of harvest.	
	Plum curculio	2 pts.	6 pts.		
	The rates for use on nectarines are based on a standard of 300 gal./acre dilute spray for mature trees. DOUGLAS 57% MALATHION may cause fruit spotting on nectarines.				
Papaya	Aphids Mealybugs	1 1/2 - 2 pts.	-	May be applied on the day of harvest.	
Peaches	Black cherry aphid Black peach aphid European red mite Green peach aphid Rusty plum aphid Japanese beetle Spider mites	1 pt.	3 pts.	Do not apply within 7 days of harvest.	
	Oriental fruit moth Plum curculio	2 pts.	3 pts.		
	Cottony peach scale European fruit lecanium Terrapin scale	2 pts.	-		Make full coverage applications at completion of hatching, about 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 gal./acre dilute spray for mature trees. Do not apply more than 9 lbs. of actual DOUGLAS 57% MALATHION per acre to peach trees.				
	Pecans	Aphids Spider mites Walnut aphid	1 1/2 - 2 pts.	7 1/2 - 10 pts.	May be applied on the day of harvest.
		European red mites	1 1/4 pts.	6 1/4 pts.	
		Pecan phylloxera	1 1/4 pts.	6 1/4 pts.	Apply when bugs begin to develop and repeat as necessary. May be applied on the day of harvest.
Pecan nut casebearer Walnut husk fly		1 1/4 pts.	6 1/4 pts.	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 gal./acre dilute spray for mature trees 25-35 feet high.					

Crop	Pests Controlled	Rate/100 gals.	Rate/A	Interval (Days) Between Last Application and Harvest
Walnuts	Aphids European red mites Walnut aphid	1/2 pt.	1 1/2 - 3 pts.	May be applied on the day of harvest.
	Walnut husk fly	1/2 pt.	1 1/2 - 3 pts.	Apply with conventional sprayer. For bait sprays, combine Staley's Sauce Base #2 or #7 at the rate of 2 qts./acre with DOUGLAS 57% MALATHION. May be applied on the day of harvest.
	-	-	3 - 4 pts.	Apply in 500 gallons of water per acre with air-carrier type sprayer. For bait sprays, combine Staley's Sauce Base #2 or #7 at the rate of 2 qts./acre with DOUGLAS 57% MALATHION. May be applied on the day of harvest.

Field Crops and Pasture and Range Grasses:

Crop	Pests Controlled	Rate/A	Interval (Days) Between Last Application and Harvest
Alfaifa	Alfaifa weevil larvae Aphids Grasshoppers Lygus bugs Potato leafhoppers Spider mites Spittlebugs Stink bugs	1 1/2 - 2 pts.	Apply to alfaifa 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.
	Armyworms	2 pts.	
	Clover leaf weevil	1 1/2 pts.	
	Vetch bruchid	2 - 2 1/2 pts.	
Clover	Alfaifa weevil larvae Aphids Grasshoppers Lygus bugs Potato leafhoppers Spider mites Spittlebugs	1 1/2 - 2 pts.	Do not apply to clover in bloom. May be applied on the day of harvest.
	Armyworms	2 pts.	
	Clover leaf weevil	1 1/2 pts.	

Crop	Pests Controlled	Rate/A	Interval (Days) Between Last Application and Harvest
Corn ~Grain ~Forage ~Sweet ~Field	Aphids Corn earworm Corn rootworm adults Grasshoppers Sap beetle Thrips	1 1/2 pts.	For control of corn earworm and sap beetles, begin treatment when 10% of the ears show silk. Repeat applications at 3-5 day intervals until 4-5 applications have been made. Do not apply within 5 days of harvest or forage use.
Armyworms	1 1/2 - 2 pts.	Injury may occur in the whorl and silk stages with DOUGLAS 57% MALATHION.	
Cotton	Brown cotton leafworm Cotton aphid Cotton leafworm Cotton leafperforator Desert spider mites Leafhoppers Lygus bugs Thrips Whiteflies	1/2 - 2 pts.	May be applied on the day of harvest. Consult local agricultural authorities for exact time of application.
Boll weevil	2 - 4 pts.	May be applied on the day of harvest.	
Cotton fleahoppers	1 - 1 1/2 pts.		
Grasses ~Barnyardgrass ~Canarygrass ~Fescue ~Orchardgrass ~Red top ~Timothy ~Yellow foxtail	Fall armyworms Garden webworms Grasshoppers	1 1/2 - 3 pts.	May be applied on the day of harvest or grazing.
Lygus bugs Thrips	1 - 4 pts.		
Pastures ~Range Grass ~Grass ~Grass Hay	Cereal leaf beetle	1 - 1 1/2 pts.	May be applied on the day of harvest or grazing.
Aphids Grasshoppers Leafhoppers	1 1/2 - 2 pts. or 1 1/2 pts. in 1 gl. of diesel fuel oil / acre	May be applied on the day of harvest or grazing.	
Armyworms	2 pts. or 1 1/2 pts. in 1 gl. of diesel fuel oil /acre		

Crop	Pests Controlled	Rate/A	Interval (Days) Between Last Application and Harvest
Small Grains ~Barley ~Oats ~Rye ~Wheat ~Rice	Cereal leaf beetle	1 - 1 1/2 pts.	Do not apply within 7 days of harvest or forage use.
	English grain aphids	1 1/2 pts.	
	Grasshoppers		
	Greenbugs	2 pts.	
	Winter grain mites		
Sorghum ~Grain	Greenbugs	1 1/2 pts.	Do not apply within 7 days of harvest. Do not feed or graze by livestock.
Vetch	Omniverous leaf tier Pea aphid Vetch bruchid	1 1/2 - 2 1/2 pts.	May be applied on the day of harvest or grazing.

Mosquito Control:

Mosquito larvae	13 fl. oz. per acre	For use in standing water "Broadcast use only over intermittently flooded areas. Application may not be made around bodies of water where fish or shellfish are grown and/or harvested commercially". Mix in sufficient water or oil when applied by air or ground equipment.
Mosquito adults	1 pt. to 28 pts. of water, fuel or diesel oil.	Spray building foundations, shrubs, low trees and lawn areas.

OUTDOOR ORNAMENTALS

Flowers, Shade Trees, Shrubs: Injury may occur on Ferns, Hickory, Viburnum, Crassula and Canareti Juniper following the use of DOUGLAS 57% MALATHION, 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.

Pest	Rate	Remarks
Aphids Spider mites	1 1/2 pts. per 100 gallons or 2 teaspoons per gallon.	-
Bagworms Birch leaf miner Boxwood leaf miner	2 pts. per 100 gallons or 2 teaspoons per gallon.	-
European pine shoot moth Four-lined leaf bug Japanese beetle adult Potato leafhopper Rose Leafhopper Tamished plant bug Thrips	1 1/2 pts. per 100 gallons or 2 teaspoons per gallon.	-

Pest	Rate	Remarks
Lace bug	1 pt. per 100 gallons or 2 teaspoons per gallon.	-
Mealybugs Whiteflies	1 1/2 pts. per 100 gallons or 2 teaspoons per gallon.	-
Oak kermes	2 pts. per 100 gallons or 2 teaspoons per gallon.	Apply when scale crawlers have settled on foliage.
Tent caterpillar	2 pts. per 100 gallons or 2 teaspoons per gallon.	-
Oyster shell scale	1 pt. per 100 gallons or 2 teaspoons per gallon.	Apply when scale crawlers have settled on foliage.
Euonymus scale Scurfy scale	1 1/2 pts. per 100 gallons or 2 teaspoons per gallon.	-
Azalea scale Magnolia scale Pine leaf scale	2 pts. per 100 gallons or 2 teaspoons per gallon.	-
Fletcher scale	2 pts. per 100 gallons or 2 teaspoons per gallon.	Apply when scale crawlers have settled on foliage.
Florida red scale Juniper scale	2 pts. 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 pts. per 100 gallons or 2 teaspoons per gallon.	-
Monterey pine scale	2 1/2 pts. per 100 gallons or 2 teaspoons per gallon.	-
Pine needle scale	4 pts. per 100 gallons or 4 teaspoons per gallon.	-
Wax scale	4 pts. 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.

Around The Home:

Site	Pest	Rate	Remarks
Lawns	Ant mounds	1 1/2 pts. per 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 10-15 days if ants return.
	Ground pearls	3 - 4 qts. per 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:

Pest	Rate	Remarks
Drosophila flies Dried fruit beetles	1 1/2 gallons per 100 gallons of water.	Apply as a drench using 8-10 gals of spray per 100 sq. ft. For best results, dumps should not be over 18 inches deep. DO NOT FEED TREATED FRUIT AND VEGETABLES.