5905-196

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08-03-2010

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



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

August 3, 2010

Julie Mills Registration Specialist Helena Chemical Company 7664 Smythe Farm Road Memphis, TN 38120

Dear Ms. Mills:

Subject:

Submission of amended labeling per Use Deletion Guidance 12/30/08 and revised

May 2009 Malathion RED Label Table

EPA Reg. No. 5905-196

Submissions dated February 8, 2010

The proposed labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you submit two copies of your final printed label before you release the product for shipment. Products shipped after 18 months from the date of this amendment or the next printing of the label which ever occurs first, must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e).

Additional label corrections may be needed pending submittal and review of your responses to the Malathion RED.

A stamped copy is enclosed for your records. If you have any questions, please contact Marianne Lewis at (703) 308-8043 or <a href="mailto:lewis.marianne@epa.gov">lewis.marianne@epa.gov</a>.

Regaras,

Venus Eagle

Insecticide-Rodenticide Branch Registration Division (7505P)

Enclosure

## Malathion Insecticide

#### **ACTIVE INGREDIENT:**

Malathion: O.O-dimethyl phosphorodithioate of diethyl INERT INGREDIENTS .....43.56% TOTAL......100.00%

(ONE GALLON OF FYFANON CONTAINS 5 POUNDS OF MALATHION)

## KEEP OUT OF REACH OF CHILDREN **WARNING - AVISO**

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

#### PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### **WARNING-AVISO**

Causes substantial but temporary eye injury. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Do not get in eves or on clothing. Avoid breathing vapor or spray mist.

#### **FIRST AID**

#### Organophosphate

### IF SWALLOWED:

- Immediately call a poison control center or doctor.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give any liquid to the person.
- Do not give anything by mouth to an unconscious person.

#### IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control poison center or doctor for further treatment advice.

## IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20
- Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

#### IF ON SKIN OR CLOTHING:

- Take off contaminated clothing
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of emergency, call 1-800-424-9300.

#### **NOTE TO PHYSICIAN**

Contains an organophosphate that inhibits cholinesterase. Atropine is antidotal, 2PAM may be effective as an adjunct to atropine.

## SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONS AND

Disclaimer: Always refer to the label on the product before using Helena or any other product.

### **DIRECTIONS FOR USE**

SN 1109/0610

**NET CONTENTS:** 

EPA REG. NO. 5905-196

EPA EST, NO. First letters of batch code indicate producing

5905-GA-1=CG • 5905-AR-1=WA • 5905-IA-1=DI • 5905-CA-1=KC

"RQ", Organophosphorus Pesticide, Liquid, Texic

UN3018

MANUFACTURED FOR

HELENA CHEMICAL COMPANY Under the Rederal In 225 SCHILLING BOULEVARD, S COLLIERVILLE, TENNESSEE 38

PHONE: 901-761-0050

Pregictie, and Rodentick Registered under EPA Reg. No. 5905-

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, or viton. If you want more options, follow the instructions for category F on an EPA chemicalresistance category selection chart.

For all formulations and all use patterns - mixers, loaders, applicators, flaggers and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves
- Chemical-resistant headgear (add for airblast application)
- Chemical-resistant apron (add for mixers and loaders)

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

#### **ENGINEERING CONTROLS**

Pilots must use an enclosed cockpit in manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170,240(d)(6)]. Pilots must wear the PPE required on this labeling for applicators.

#### **USER SAFETY RECOMMENDATIONS** Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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**

This pesticide is toxic to aquatic organisms, including fish and invertebrates. This product may contaminate water through drift of spray in wind. This product has a high potential for runoff after application. Use care when applying in or to an area which is

adjacent to any body of water and do not apply when weather conditions favor drift from target area. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This pesticide 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 while bees are actively visiting the treatment area.

#### DIRECTIONS FOR USE

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

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. 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 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 Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI). The REI for each crop is listed in the directions for use associated with each crop.

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:

- Coveralis
- Shoes plus socks, and
- Chemical-resistant gloves made of any waterproof material

#### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in 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

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this product is used to produce agricultural plants on farms, forests, or nurseries. Do not enter or allow others to enter until sprays have dried.

#### STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: FYFANON® should be stored in the original unopened container in a secure dry place. Do not contaminate with other pesticides or fertilizers. The product should never be heated above 55°C (131°F), and should not be stored for long periods of time at a temperature in excess of 25°C (77°F).

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER DISPOSAL: Nonrefillable container: (equal to or less than 5 gallons): Do not reuse or refill this container. Triple rinse (or equivalent). Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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.

Nonrefillable container (greater than 5 gallons): Do not reuse or refill this container. Triple rinse (or equivalent). Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container ½ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. 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.

# PRECAUTIONS AND RESTRICTIONS SPRAY DRIFT REQUIREMENTS

Observe the following requirements when spraying in the vicinity of aquatic areas such as, but not limited to lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

#### DROPLET SIZE

Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

For groundboom and aerial applications, use only medium or coarser spray nozzles according to ASAE (S572) definition for standard nozzles, or a volume mean diameter (VMD) of 300 microns or greater for spinning atomizer nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

#### WIND DIRECTION AND SPEED

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph. For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

#### **TEMPERATURE INVERSION**

should use a coarser droplet size.

Do not make aerial or ground applications into areas of temperature inversions.

Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface. In conditions of low humidity and high temperatures, applicators

ADDITIONAL REQUIREMENTS FOR GROUND APPLICATIONS Spray should be released at the lowest height consistent with pest

control and flight safety. Applications more than 10 feet above the crop canopy should be avoided. For groundboom applications, apply with nozzle height no more than 4 feet above the ground or crop

canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

#### **BUFFER ZONES FOR AERIAL APPLICATION**

When making a Non-ULV application with aerial application equipment, a minimum buffer zone of 25 feet must be maintained along any water body.

#### ADDITIONAL REQUIREMENTS FOR AERIAL APPLICATIONS

For aerial applications, the spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or 90% rotor diameter.

Aerial applicators must consider flight speed and nozzle orientation in determining droplet size.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

#### **AGRICULTURAL USES**

Use the higher rate when insect pressure is heavy.

Make application to agricultural sites using a minimum of 30 (ground) or 5 (aerial) gallons of water/A unless otherwise noted in the table directly below.

Crop	Pests Controlled	Rate/Acre	Max. Single App. Rate (Ib ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
Alfalfa	Alfalfa weevil larvae*; aphids; grasshoppers; lygus bugs; potato leaf hoppers; spider mites; spittlebugs; stink bugs; pea aphid	1.5-2 pints	1.25	2 per cutting	14	0	12 hrs
	Armyworms Clover leaf weevil Vetch buchid	2 pints 1.5 pints 2 pints					
Apply to b	 looming alfalfa only in early n	norning or even	ing when bees ar	e not working fie	ld or not hangin	g on outside of his	/es.
	ay temperature is expected to						
Apricots	Aphids; codling moth; European fruit lecanium; orange tortrix; soft brown scale; terrapin scale	2 pints	1.5	2	7	6	12 hrs
Avocado	Greenhouse thrips	7.5 pints	4.7	2	30	7	2 days

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	ard dilution rate	of 500 (ground)	gallons of water/	<u>A.</u>	,- <del></del>	
English grain aphids; grasshoppers; greenbugs; winter grain mites	1-2 pints	1.25	2	7	7	12 hrs
Aphids	1.5-2 pints	1.25	3	7	7	12 hrs
ly to Sugar Beets.						
Blueberry maggots; cherry fruit worm; cranberry fruit worm; Japanese beetle	2 pints	1.25	3	5	1	12 hrs
or use on blueberries are ba	sed on a standa	ard of 200 gallons	s per acre dilute	spray.		
Aphids; cabbage looper; imported cabbageworm; carrot weevil; flea beetle	1-2 pints	1.25	2	7	2	2 days
Aphids; cabbage looper; imported cabbage worm; carrot weevil; flea beetle	1-2 pints	1.25	2	7	2	2 days
looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle	1-2 pints	1.25	6	7	7	2 days
lars on summer and fall plar	itings, begin wh	en true leaves a	ppear. On other	plantings for liste	ed insects, apply	when first appear.
Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle	1-2 pints	1.25	2	7	7	24 hours
lars on summer and fall plar	tings, begin wh	en true leaves a	ppear. On other	plantings for liste	ed insects, apply	when first appear.
Aphids; rose scale chafers; Japanese beetle; leafhoppers; mites; thrips	3 pints	2.0	3	7	1	12 hrs
rates are based on a standa	ard dilution rate	of 200 (ground)	gallons of water/	Α.		
Aphids; pickleworms; spider mites; cut worms; darkling ground beetle; leafhoppers; squash vine borer; thrips	1.5-2.8 pints	1.75	2	7	1	24 hrs
	2.4 pints	1.5	2	7	7	24 hrs
Black cherry aphid; fruit tree leafroller; Japanese beetle; cherry fruit fly; eyespotted bud moth	2.8 pints	1.75	4	3	3	12 hrs
	Cereal leaf beetle; English grain aphids; grasshoppers; greenbugs; winter grain mites  Aphids  y to Sugar Beets.  Blueberry maggots; cherry fruit worm; cranberry fruit worm; Japanese beetle  or use on blueberries are base  Aphids; cabbage looper; imported cabbageworm; carrot weevil; flea beetle  Aphids; cabbage looper; imported cabbage worm; carrot weevil; flea beetle  Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle  lars on summer and fall plan  Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle lars on summer and fall plan  Aphids; rose scale chafers; Japanese beetle; leafhoppers; mites; thrips  rates are based on a standa  Aphids; pickleworms; spider mites; cut worms; darkling ground beetle; leafhoppers; squash vine borer; thrips  Aphids; spider mites  Black cherry aphid; fruit tree leafroller; Japanese beette; cherry fruit fly; eyespotted bud moth	looper; orange tortrix; soft brown scale  rates are based on a standard dilution rate  Cereal leaf beetle; English grain aphids; grasshoppers; greenbugs; winter grain mites  Aphids 1.5-2 pints  Yo Sugar Beets.  Blueberry maggots; cherry fruit worm; cranberry fruit worm; Japanese beetle  or use on blueberries are based on a standard cabbageworm; carrot weevil; flea beetle  Aphids; cabbage looper; imported cabbage worm; carrot weevil; flea beetle  Aphids; cabbage looper; imported cabbageworm; carrot weevil; flea beetle  Aphids; cabbage looper; imported cabbageworm; carrot weevil; flea beetle  Aphids; cabbage looper; imported cabbageworm; carrot weevil; flea beetle  Iars on summer and fall plantings, begin wh Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle  lars on summer and fall plantings, begin wh Aphids; rose scale chafers; Japanese beetle; leafhoppers; mites; thrips 3 pints  rates are based on a standard dilution rate  Aphids; pickleworms; spider mites; cut worms; darkling ground beetle; leafhoppers; mites; thrips 1.5-2.8 pints  parts are based on a standard dilution rate  Aphids; pickleworms; spider mites; cut worms; darkling ground beetle; leafhoppers; pints squash vine borer; thrips  Aphids; spider mites 2.4 pints  Black cherry aphid; fruit tree leafroller; Japanese beetle; cherry fruit fly; eyespotted bud moth	latnia scale; omnivorous looper; orange tortrix; soft brown scale rates are based on a standard dilution rate of 500 (ground). Cereal leaf beetle; English grain aphids; grasshoppers; greenbugs; winter grain mites  Aphids 1.5-2 pints 1.25  Y to Sugar Beets.  Blueberry maggots; cherry fruit worm; cranberry fruit worm; Japanese beetle  or use on blueberries are based on a standard of 200 gallon: Aphids; cabbage looper; imported cabbageworm; carrot weevil; flea beetle  Aphids; cabbage looper; imported cabbage worm; carrot weevil; flea beetle  Aphids; cabbage looper; imported cabbage worm; carrot weevil; flea beetle  Aphids; cabbage looper; imported cabbage worm; diamondback moth; webworm; carrot weevil; flea beetle  ars on summer and fall plantings, begin when true leaves a Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle  ars on summer and fall plantings, begin when true leaves a Aphids; rose scale chafers; Japanese beetle; leafhoppers; mites; thrips 3 pints 2.0  rates are based on a standard dilution rate of 200 (ground). Aphids; pickleworms; spider mites; cut worms; darkling ground beetle; leafhoppers; mites; thrips 1.5-2.8 pints squash vine borer; thrips  Aphids; spider mites 2.4 pints 1.5  Black cherry aphid; fruit tree leafroller; Japanese beetle; cherry fruit fly; eyespotted bud moth	latnia scale; omnivorous looper, orange tortrix; soft brown scale rates are based on a standard dilution rate of 500 (ground) gallons of water/. Cereal leaf beetle; English grain aphids; grasshoppers; greenbugs; winter grain mites   Aphids	latnia scale; omnivorous looper; orange tortrix; soft brown scale rales are based on a standard dilution rate of 500 (ground) gallons of water/A.  Cereal leaf beetle; English grain aphids; grasshoppers; greenbugs; winter grain mites Aphids 1.5-2 pints 1.25 2 7 y to Sugar Beets.  Blueberry maggots; cherry fruit worm; 2 pints 1.25 3 5 Use Sugar Beets.  Blueberry fruit worm; 2 pints 1.25 3 5 Use Sugar Beetle or use on blueberries are based on a standard of 200 gallons per acre dilute spray.  Aphids; cabbage looper; imported cabbageworm; carrot weevil; flea beetle Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle lars on summer and fall plantings, begin when true leaves appear. On other plantings for liste Aphids; rose scale chafers; Japanese beetle; leafhoppers; mites; thrips 3 pints 2.0 3 7  rates are based on a standard dilution rate of 200 (ground) gallons of water/A.  Aphids; pickleworms; spider mites; cut worms; darkling ground beetle; leafhoppers; pints squash vine borer; thrips 2, 2,4 pints 1.5-2.8 2,7 5  Aphids; spider mites 2,4 pints 1.5-2.8 7  Aphids; spider mites 2,4 pints 1.5-2.8 7  Aphids; pickleworms 2,2,4 pints 1.5-2.8 7  Aphids; spider mites 2,4 pints 1.5-2.8 7  Aphids; cabbage 1,5-2.8 5,5-2.8 7  Aphids; spider mites 2,4 pints 1.5-2.8 7  Aphids; cabbage 1,5-2.8 5,5-2.8 7  Aphids; cabbage 1,5-2.8 5,5-2.8 7  Aphids; pickleworms; pints 1,5	lathia scale; ormivorous soft brown scale rates are based on a standard dilution rate of 500 (ground) gallons of water/A.  Cerael leaf betelet, English grain aphids; grasshoppers; grasshoppers; grasshoppers; bedie to the companies of the compan

narticularly	in the Northwest.		SPECIME	N LADEL			
Clover	Alfalfa weevil larvae;	· ·		Т	1		<u> </u>
	aphids; grasshoppers; lygus bugs; potato leaf hoppers; spider mites; spittlebugs; stink bugs; pea aphid	1.5-2 pints	1.25	2 per cutting	14	0	12 hrs
	Armyworms Clover leaf weevil Vetch buchid	2 pints 1.5 pints 2 pints					
Do not apr	oly to clover in bloom.						<del></del>
Collards	Aphids; harlequin cabbage bug; smaller cabbage looper; leaf hoppers; leaf miners	1.5 pints	1.0	3	7	7	12 hrs
Corn (field)	Aphids; corn earworms; corn rootworm adults; young grasshoppers; sap beetle; thrips;	1.E minto	4.0	2	7	7	3 days for detassling; 12 hrs for all other activities
Corn (sweet and pop) smaller armyworms; leaf hopper	1.5 pints	1.0	2	5	5	3 days for detassling; 12 hrs for all other activities	
	arworm and sap beetles, trea occur in the whorl silk stages		he ears show s	silk.			
Cotton	Brown cotton leafworm; cotton aphid; cotton leafworm; cotton leaf perforator; desert spider mite; leafhoppers; lygus bugs; thrips; whiteflies; fall armyworms; garden webworms; grasshoppers	1.5-4 pints					·
	Boll weevil	2-4 pints	2.5	3	7 .	7	2 days
	Cotton fleahoppers	1-1.5 pints					
	Lygus bugs; thrips	4 pints					
Use higher	r rates for larger insects or he	avy infestations	•	<u> </u>			
Dandelion	Aphids	1.5-2 pints	1.25	2	7 .	7	24 hrs
Eggplant	Aphids; spider mites	1.6-2.5 pints	1.56	4	5	3	12 hrs
Endive (escarole)	Aphids; spider mites	1.5-2 pints	1.25	2	7	7	24 hrs
Figs	Dried fruit beetle; vinegar flies	3 pints + 1-2 gal. sulfured molasses	2.0	2	5	5	24 hrs

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Garlic	Aphids; thrips	1.5-2.5 pints	1.56	3	7	3	24 hrs
Grain Elevators & Silos (stored barley, corn, oats, rye, wheat)	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	Mix 8 pints/25 gallons of water.	5 lb/25 gallons	1 per storage period	N/A	N/A	12 hrs

- Do not apply directly to grain.
- Before applying spray, clean thoroughly.
- Remove and burn all sweeping and debris.

For a residual wall, floor and machinery spray in grain elevators and silos, before loading grain, make a thorough application.

Grapes (raisin, table, wine)	Leafhoppers; spidermites; European fruit lecanium*; Drosophilia; Japanese beetle; terrapin scale	3 pints			<u> </u>		
	Mealybugs	1 ½ pints	1.88	2	14	3	3 days for girdling and tying 24 hrs for all other activities
Grape Vines (overwintering on root stock only)	Grape phylloxera	3 pints per 100 gallon					

- Application rates are based on a standard dilution rate of 200 (ground) gallons of water/A.
- Injury may occur on grapes of Almeria, Cardinal, Italia and Ribier varieties when sprays containing Fyfanon 57% EC are applied after clusters appear.
- Remove excess soil from roots and submerge entire root system in the Fyfanon solution for 5 minutes.
- Agitate solution at all times.

\* Make full coverage applications when newly hatched nymphs are migrating over vines, usually shortly after bloom.

Grass, forage, hay (Bermuda, barnyard grass, canary grass, fescue, orchardgrass, red top, timothy, yellow foxtail)	Cereal leaf beetle, aphids; leafhoppers; grasshoppers	2 pints	1.25	1 per cutting	N/A	0	12 hrs
Horseradish	Aphids; diamondback moth; flea beetles; leafhoppers	1.5-2 pints	1.25	3	7	7	24 hrs
Kale	Aphids; cabbage looper; imported cabbageworm; webworm; diamondback moth	1.5 pints	1.0	3	5	7	12 hrs
Kohlrabi	Aphids; cabbage looper; imported cabbageworm; diamondback moth;	1-2 pints	1.25	2	7	7	24 hrs

			SPECIMEN	LABEL		,	
	webworm; carrot weevil; flea beetle						
Leek	Aphids Onion maggot flies	1.5-2.5 pints	1.56	2	7	3	24 hrs
Lettuce (head)	Aphids; leafhoppers;	3 pints	1.88	2	6	14	24 hrs
Lettuce (leaf)	spider mites; cabbage lopper	2.5-3 pints	1.88	2	5	14	24 hrs
Mint	Aphids; flea beetles; leafhoppers; spider mites; caterpillars	1.5 pints	0.94	3	7	7	12 hrs
Mustards (mustard greens; mustard spinach; Chinese mustard mizuna)	Aphids; cabbage looper; imported cabbageworm; webworm; diamondback moth	1.5 pints	1.0	3	5	7	12 hrs
Nectarines	arines Spider mites: plum	1-2 pints	3.0	3	7	7	24 hrs
	Aphids*; Japanese beetles*	4-4.8 pints		3	,	'	24 1115
<ul> <li>Fyfanon 57</li> <li>May be mixed</li> </ul>	rates are based on a standa % EC may cause fruit spotti with spray oil for dormant ar	ng on nectarine	S.			directions.	And the second s
Oats	Cereal leaf beetle; English grain aphids; young grasshoppers; greenbugs	1.5 pints	1.0	2	7	7	12 hrs
Okra	Aphids Japanese beetle	1.5 pints 1.9 pints	1.2	5	7	1	12 hrs
Onion (bulb and green)	Onion maggots	1.5-2.5 pints	1.56	2	7	3	12 hrs
	Onion thrips	1.5-2 pints			,		121113
Parsnip	Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle	1.5-2 pints	1.25	3	7	7	24 hrs
Peaches	Black cherry aphid; black peach aphid; European red mite; green peach aphid; rusty plum aphid; Japanese beetle; spider mite	2.4 pints	3.0	3	11	7	24 hrs
	Oriental fruit moth; plum curculio; cottony peach scale; European fruit lecanium; terrapin scale	4.8 pints		J			
	rates are based on a standa					<u> </u>	
<ul> <li>Do not apple</li> <li>Peas (dried,</li> </ul>	y more than 9 pounds of act Pea weevils; aphids	1.5 pints	% EC per acre p 1.0	er year to peach	trees.	3	12 hrs
Jas (arrou,	1 . Ju 11551115, aprilido	piillo	1.0		1	, ,	- F 1110

green)							
Pecans	Pecan bud moth; aphids; pecan leaf casebearer <sup>2</sup> ; spider mites; mites; Pecan phylloxera <sup>1</sup> ; Pecan nut casebearer <sup>2</sup> ; Walnut husk fly <sup>2</sup> ;	1.5-2 pints	2.5	2	7	7	24 hrs

Application rates are based on a standard dilution rate of 500 (ground) gallons of water/A for mature trees 25-35 feet high.

<sup>1</sup> Apply when buds begin to develop.

<sup>2</sup> Apply when first generation eggs begin to hatch.

Peppers	Aphids Pepper maggots	1-2.5 pints 2.5 pints	1.56	2	5	3	12 hrs
Potatoes	Aphids; grasshoppers; leafhoppers	2 pints					
	False chinch bug	1.5 pints	1.56	2	7	0	12 hrs
	Mealybugs	2-2.5 pints					
Radish	Aphids	1.5 pints	1.0	3	7	7	12 hrs
Rutabagas	Aphids	1.5 pints	1.0	3	7	7	12 hrs
Rice Rice (wild)	Rice stink bug; rice leaf miner	2 pints	1.25	2	7	7	12 hrs

- Treat for leafminers shortly after first rice blades appear on surface of the water.
- For leafminers, apply when the eggs and larvae are abundant on the seedling rice.
- Apply during early milk and dough stage using a minimum of 2 (aerial) gallons of water/A.

• Do not apply Propanil within 15 days of malathion treatment.

NOTE FOR AQUATIC USES (rice): 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.

Rye	Cereal leaf beetle	1-1.5 pints		_	7	_	
	English grain aphids; young grasshoppers; greenbugs	1.5 pints	1.0	3	7	7	12 hrs
Salsify	Aphids; imported cabbage worm; cabbage looper; carrot weevil; flea beetles; leafhoppers; spider mites; thrips	1-2 pints	1.25	3	7	7	24 hrs
Shallot	Aphids; thrips;	2.5 pints	1.56	2	7	3	24 hrs
Sorghum	Greenbugs	1.5 pints	1.0	2	7	7	12 hrs
Spinach	Aphids	1.5 pints	1.0	2	7	7	12 hrs
Squash, summer	Aphids; cucumber beetle; leaf miners; pickleworms; spider mites; cut worms; darkling ground beetle; leafhoppers; squash vine borer; thrips	2.8 pints	1.75	3	7	1	24 hrs
Squash, winter	Aphids	1.5 pints	1.0	3	7	1	12 hrs
Strawberry	Aphids; spider mites; Field crickets; lygus bugs; spittle bugs; thrips; potato leafhopper; strawberry leafroller; strawberry	1.5-3.2 pints	2.0	4	7	3	12 hrs

Disclaimer: Always refer to the label on the product before using Helena or any other product.

				N LADEL			
	root weevil; white flies; thrips						
Sweet Potatoes	Leafhoppers; Morningglory leaf miner	1.5-2.5 pints	1.56	2	7	0	12 hrs
Swiss chard	Aphids	1.5 pints	1.0	2	7	14	12 hrs
Tomatoes, Tomatillos	Aphids; spider mites Drosophila	1.5 pints 2.5 pints	1.56	4	5	1	12 hrs
Apply a full	coverage application to fruit	and foliage.		<del>-</del>			<u></u>
Vetch	Alfalfa weevil larvae; aphids; armyworms; clover leaf weevil; grasshoppers; lygus bugs; pea aphid; potato leafhoppers; spider mites; spittlebugs; vetch bruchid; omnivorous leaf tier; pea aphid; vetch bruchid	1-2 pints	1.25	2 per cutting	14	0	12 hrs
Watercress	Aphids	2 pints or 1.6 pints	1.25 or 1.0	5	3	3	24 hrs or 12 hrs
Wheat (Spring and Winter)	Cereal leaf beetle	1-1.5 pints					
	English grain aphids; young grasshoppers; greenbugs	1.5 pints	1.0	2	7	7	12 hrs

## **NON-AGRICULTURAL OUTDOOR USE SITES**

Site	Single App. Rate		Use Pattern Limitations	Restricted Entry Interval (days)
Christmas tree plantations	82	3.2 lb ai/A	Maximum of 2 applications per year	12 hrs
Fence rows/hedge rows	6	0.2439 lb ai/1000 ft2		
Ornamental and/or shade trees	64	2.5 lbs ai/100 gal	Maximum of 2 applications per year; 10 day minimum re- treatment interval	12 hrs
Ornamental herbaceous plants	64	2.5 lbs ai/100 gal		12 hrs
Ornamental non-flowering plants	64	2.5 lbs ai/100 gal		
Ornamental woody shrubs and vines	64	2.5 lbs ai/100 gal	Maximum of 2 applications per year/growing cycle; 10 day minimum re- treatment interval	12 hrs
Pine seed orchards	82	3.2 lbs ai/A	Maximum of 2 applications per year/growing season; 7 day minimum re- treatment interval	12 hrs

OUTDOOR FLY CONTROL Fly control: For use on the lower outside foundation of the home and fence/hedge rows.

PEST CONTROLLED	RATE	DIRECTIONS FOR USE
Adult flies	Straight sprays: 5 tablespoons + 1 gallon water	Apply as a spray at the rate of 1 gallon per 1,000 sq. ft. on
	or 1 cup + 2 ½ gallon water or 6 ounces + 12	painted surfaces and 2 gallons per 1,000 sq. ft. on unpainted
	gallon water	surfaces where flies alight or congregate

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sugar or molasses (unsulfurized) or corn syrup	
Sugar of molasses (unsultunzed) of confisyrup	surfaces. Wait 14 days after whitewashing before applying.
+ 2 ½ gallon water or 1 cup + 1 cup sugar or	
molasses (unsulfurized) or corn syrup + 2 ½	
gallon water or 1 quart + 2 ½ lbs. sugar or 1	
quart molasses (unsulfurized) or 1 quart corn	
syrup + 12 gallons water	
-	molasses (unsulfurized) or corn syrup + 2 ½ gallon water or 1 quart + 2 ½ lbs. sugar or 1 quart molasses (unsulfurized) or 1 quart corn

MOSQUITO CONTROL (Localized Applications only – not for wide areas of applications)

OUTDOOR RESIDENTIAL ADULT MOSQUITO CONTROL: For control of mosquitoes outdoors, use a 2% to 5% Malathion area or fog spray. For a 2% spray, dilute 1 part of FYFANON® with 28 parts of water; for 5%, dilute 1 to 11. Repeat as necessary. Treat along lower outside foundation of home, and spot treat shrubbery and vegetation where mosquitoes may rest.

MOSQUITO LARVAE CONTROL: For control of mosquito larvae in standing water, intermittently flooded areas, stagnant water, and temporary rain pools, apply 13 ounces of FYFANON® per acre. Mix in sufficient water or oil to obtain even coverage when applied by air or ground equipment. NOTE: 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. CONTAMINATION OF SHALLOW, FISH-BEARING WATERS MAY KILL FISH.

CONDITIONS OF SALE - LIMITED WARRANTY
AND LIMITATIONS OF LIABILITY AND REMEDIES
Read the Conditions of Sale - Warranty and Limitations of
Liability and Remedies before using this product. If the terms
are not acceptable, return the product, unopened, and the full
purchase price will be refunded.

The directions on this label are believed to be reliable and must be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence

of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. To the extent consistent with applicable law, the Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company's election, one of the following:

- Refund of the purchase price paid by buyer or user for product bought, or
- 2. Replacement of the product used

To the extent consistent with applicable law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.

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