

67760-40

08/08/2008

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

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Ms. Carrie M. Tackema  
Regulatory Affairs Manager, North America  
Cheminova, Inc.  
1700 Route 23, Suite 300  
Wayne, NJ 07470

AUG 8 2008

Subject: Revised Formulation and Revised Labeling Under PRIA  
Additional Uses  
Fyfanon 57EC  
EPA Reg. No. 67760-40  
Application Dated December 18, 2007 as Revised July 28, 2008  
Revised CSF Dated April 7, 2008  
Revised Labeling Submitted July 28, 2008

Dear Ms. Tackema:

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:

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

1. There is no record of a current malathion registration for use on **turf farms** and this use must be removed from the draft label. It should be noted that the "ornamental turf" and the feed commodity, "grass" uses on the label of the active ingredient source product used to formulate the subject product do not include turf farms. For any further consideration of the turf farm use, it must be proposed as a new use under PRIA.

2. Since your letter of July 28, 2008 specified that Cheminova was not supporting the use on residential turf, all uses on **lawns** must be removed from the draft label.

3. As specified in item seven of our July 14, 2008 letter, add a non-agricultural use box and place the early entry restriction cited below inside the box.

Do not enter or allow others to enter until sprays are dry.

4. As specified in item twelve of our July 14, 2008 letter, revise the PHI for those agricultural crops (crops within the scope of the Worker Protection Standard) bearing a PHI less than the REI (12 hours) so that they are no less than the REI. The PHI was corrected for all the crops listed in our letter except blueberries (the Northeast use).

5. As specified in item five of our July 14, 2008 letter, expand on the Note to Physician section to include poisoning symptoms.

6. As specified in item six of our July 14, 2008 letter, the Worker Protection Standard (WPS) drift statements (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.) are to be located directly above the Agricultural Use Requirements box.

7. Reinstate the storage statements appearing on the previous draft label, as revised in item fourteen of our July 14, 2008 letter. The revision will bring it into agreement with the malathion RED ("The product should not be stored for long periods of time at a temperature in excess of 25 degrees C (77 degrees F)").

8. The correction in the PHI statements for sorghum as specified in item 9e of our July 15, 2008 letter ("7 days of harvest. Do not graze or feed grain sorghum forage, fodder/stover, or hay") is needed to be consistent with the statements appearing on the registered source product label. The registered source product label does not allow for reformulation into end-use products labeled for the sorghum use without the specified grazing/feeding restriction.

9. Make the corrections cited below to the added fly and mosquito control use (page 18). This use, which is registered for the subject product, did not appear on the previous draft label.

a. Remove all indoor uses including food processing and agricultural buildings, dairy barns, loafing sheds and uses on manure and poultry droppings. Malathion is not being supported for use on these sites.

b. Remove all the statements implying indoor use. These statements include the following:

Do not use in edible products areas 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. Avoid contamination of milk, milk equipment and water. Remove lactating dairy animals from buildings before treating. Also remove animals under one month of age before treating.

c. Remove the text "such as walls, ceilings, stanchions, windows, in dairy barns, etc." from the phrase "such as walls, ceilings, stanchions, windows, in

dairy barns, fences, around garbage cans, etc.” so that it reads as follows: “fences and around garbage cans” The terms “such as “and “etc” are too broad and encompassing.

d. Revise the first statement under the “Fly and Mosquito Control” heading (For use in and around buildings which house domestic animals, around yards, homes and meat and food processing plants.”) to read as cited below.

For use around the outside of buildings which house domestic animals, homes and meat and food processing plants and around yards. Not for indoor use.

e. Revise the statement “For effective control in and around dairy barns \_\_” to read as follows: “For effective control around the outside of dairy barns \_\_.”

B. Submit your completed formulator’s exemption statement, EPA Form 8570-27 before you release the subject product for shipment. As specified in item one of our July 14, 2008 letter, appropriate data compensation materials are required to support registration of the following malathion supported uses which do not appear on the registered label for the subject product: chayote; salsify; chestnut; guava; mango; passion fruit; and lespedeza.

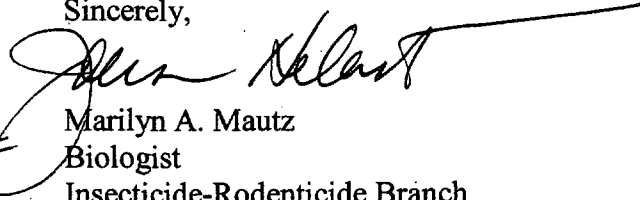
If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions.

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

The revised basic Confidential Statement of Formula dated April 7, 2008 is acceptable and has been incorporated into our files for the subject product.

Please be aware that additional label revisions may be necessary when the subject product undergoes the reregistration review process under the malathion Reregistration Eligibility Decision.

Sincerely,

*for* 

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

4/23

ACCEPTED  
with COMMENTS  
In EPA Letter Dated:  
AUG 8 2008  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, the pesticide  
registered under EPA Reg. No.  
163360-40

**FYFANON® 57% EC**  
Organophosphate

<b>ACTIVE INGREDIENT:</b>		
Malathion*	.....	57.0%
<b>Inert Ingredients**</b>	.....	43.0%
<b>TOTAL</b>		100.0%

\*O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate  
\*\* Contains Petroleum Distillate  
(1 gallon contains 5.0 pounds of malathion)

**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 the label find someone to explain it to you in detail)

IN CASE OF A MEDICAL EMERGENCY, CALL TOLL FREE, DAY OR NIGHT  
1-866-303-6950

**FIRST AID**

This product is an organophosphate and a cholinesterase inhibitor.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice.  
Do not give any liquid to the person.  
Do not induce vomiting unless told to by a poison control center or doctor.  
Do not give anything to an unconscious person.

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

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

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-303-6950 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** This product is an organophosphate and is a cholinesterase inhibitor. Atropine is antidotal. Contains petroleum distillate - vomiting may cause aspiration pneumonia.

See side panels for additional precautionary statements

Manufactured for:  
**CHEMINOVA INC.**  
1700 Route 23, Suite 300  
Wayne, NJ 07470  
www.cheminova.us.com

EPA Reg. No. 67760-40

EPA Est. No.

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

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS (& DOMESTIC ANIMALS)**

**WARNING**

Causes substantial but temporary eye injury. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** 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:

- Long sleeved shirt and long pants
- Coveralls
- Chemical - resistant gloves, such as Barrier Laminate, or Butyl Rubber, or Nitrile Rubber, or Viton
- Shoes plus socks
- Chemical-resistant footwear
- Protective eyewear

For overhead exposure, wear chemical-resistant headgear.

Mixers/loaders (and those cleaning-equipment) must wear a chemical-resistant apron.

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

**ENGINEERING CONTROL STATEMENTS:** When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**User Safety Recommendations:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing 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 product is toxic to fish, aquatic invertebrates and aquatic life stages of amphibians. For terrestrial uses, 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 washwaters. This product is highly toxic to bees exposed to direct treatment on blooming vegetation. Do not apply this product or allow it to drift to blooming vegetation if bees are visiting the treatment area. For aquatic uses, do not apply directly to water except as directed on this label.

**PHYSICAL OR CHEMICAL HAZARDS**

Flammable. Do not use or store near heat sources or open flame, including pilot lights. Do not permit spray to contact auto vehicles as paint finish could be permanently damaged. If vehicles come in contact with spray, wash immediately.

**WARRANTY DISCLAIMER**

Cheminova warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CHEMINOVA MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

**INHERENT RISKS OF USE**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Cheminova or the seller. All such risks shall be assumed by Buyer.

**LIMITATION OF REMEDIES**

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Cheminova's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or

(2) Replacement of amount of product used.

To the extent consistent with applicable law, Cheminova shall not be liable for consequential, incidental, or special damages or losses in any matter.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Cheminova or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

**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 (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 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:

- Coveralls
- Chemical Resistant gloves such as Barrier Laminate, or Butyl Rubber or Nitrile Rubber, or Viton
- Shoes plus socks
- Protective eyewear

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.

**STORAGE AND DISPOSAL**

**Pesticide Disposal**

**Nonrefillable containers equal to or less than 5 gallons:**

Do not reuse or refill this container. Offer for recycling if available. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or 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.

**Nonrefillable containers greater than 5 gallons:**

Do not reuse or refill this container. Offer for recycling if available. Triple rinse as follows: Empty the remaining contents into the application equipment or mix tank. Fill the container ¼ 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 it 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 and store rinsate for later use or disposal. Repeat this procedure two more times.

For proper mixing, fill the spray tank at least 3/4 filled with water before Fyfanon 57% EC 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 may be made as needed unless otherwise indicated. Consult your State Agricultural Experiment Station as to the application timing.

**VEGETABLE CROPS:**

Apply in a minimum of 30 gallons of spray mix by ground;  
5 gallons per acre by air, unless otherwise indicated.

<b>CROP</b>	<b>PEST CONTROLLED</b>	<b>RATE/ACRE</b>	<b>PRE-HARVEST INTERVAL</b>
ASPARAGUS	Asparagus Aphid Asparagus Beetle Thrips	2 pints 2 pints 1.5 to 2 pints	1 day.
BEETS (root, tops)	Aphids	1.5 - 2 pints	7 days
BROCCOLI CHINESE BROCCOLI	Aphids, Cabbage Looper, Imported Cabbageworm	1-2 pints	3 days.
BRUSSELS SPROUTS	Aphids	1 - 2 pints	7 days.
CABBAGE, CHINESE CABBAGE	Aphids, Cabbage Looper, Imported Cabbageworm Diamondback Moth, Webworm	1 - 2 pints	7 days. For caterpillars on summer and fall plantings in the south, begin when true leaves appear. On other plantings and for other insects, apply when insects appear.
CARROTS	Aphids Leafhoppers	1.5 - 2 pints 2.5 pints	7 days.
CAULIFLOWER	Diamondback Moth, Aphids	1 - 2 pints	7 days.
CELERY, FLORENCE FENNEL	Aphids, Spider Mites	1.5 pints	7 days. Apply to fresh leaves and stems only. Do not use on crop grown



			for seed and oil.
COLLARDS	Aphids Harlequin Cabbage Bug	1.5 - 2 pints 1 pint	7 days. For caterpillars on summer and fall plantings in the south, begin when true leaves appear. On other plantings and for other insects, apply when insects appear.
CUCUMBERS, CHAYOTE	Aphids, Pickleworms, Spider Mites  Squash Vine Borer  Cucumber Beetle, Leaf Miner	1.5 - 2 pints  3 pints  2 pints	1 day. Apply only when cucumber leaves are dry.
DANDELION, PARSLEY (fresh, not dried), SWISS CHARD	Aphids	1.5 - 2 pints	21 days - parsley. 7 days - dandelion, Swiss chard.
EGGPLANT	Aphids, Spider Mites  Lacebugs	1 pint  3 pints	3 days.
ENDIVE (escarole)	Aphids, Spider Mites	1.5 - 2 pints	7 days.
GARLIC, SHALLOTS	Aphids, Thrips	1.5 - 2 pints	3 days.
HORSERADISH	Aphids, Diamondback Moth, Flea Beetles, Leafhoppers	1.5 - 2 pints	7 days.
HOPS	Aphids, Spider Mites	1 pint	10 days.
KALE	Aphids, Cabbage Looper, Imported Cabbageworm  Webworm, Diamondback Moth	1-2 pints  2 pints	7 days. For control of caterpillars on summer and fall plantings in the South, apply when true leaves appear. On other plantings, and for control of other insects, apply when insects appear.
KOHLRABI	Aphids  Cabbage Looper, Diamondback Moth,	1 - 2 pints  2 pints	7 days.

	Imported Cabbageworm, Webworm		
LEEK	Aphids Onion Maggot Flies Thrips	1.5 - 2 pints 2.5 pints 3 pints	3 days.
LETTUCE (Leaf, Head)	Aphids, Leafhoppers, Spider mites, Cabbage looper	2 pints	14 days leaf lettuce. 7 days head lettuce.
MUSTARDS: mustard greens mustard spinach Chinese mustard mizuna	Aphids, Cabbage Looper, imported  Cabbageworm, Flea Beetles	2 pints  1.5 - 2 pints	7 days. For caterpillars on summer and fall plantings in the south, apply when true leaves appear. On other plantings and for other insects, apply when Insects appear.
OKRA	Aphids Japanese Beetle	1.5 pints 2 pints	1 day.
ONION (green, bulb)	Onion Maggots Onion Thrips	1.5 - 2.5 pints 1.5 - 2 pints	3 days.
PARSNIP	Aphids, Flea Beetles, Leafhoppers, Spider Mites, Thrips	1.5 - 2 pints	7 days.
PEAS	Aphids Grasshoppers Leafhoppers	1.5 - 2 pints 2 pints 1.25 - 4 pints	3 days
PEPPERMINT SPEARMINT	Aphids, Flea Beetles, Leafhoppers, Spider Mites	1.5 pints	7 days.
PEPPERS	Aphids Pepper Maggots	1 - 2.5 pints 2.5 pints	3 days.
POTATOES	Aphids, Grasshoppers, Leafhoppers  False Chinch Bug  Mealybugs	2 pints  1.5 pints  2 - 2.5 pints	12 hours.
PUMPKINS	Aphids, Pickleworms, Spider Mites  Leafhoppers	2 pints  1.5 - 2 pints	3 days. Apply only when plants are dry.

	Cucumber beetles, Squash Vine Borer	3 pints	
RADISH	Aphids	1.5 - 2 pints	7 days.
RUTABAGA	Aphids	1.5 pints	3 days.
SALSIFY	Aphids, Diamondback Moth, Flea Beetles, Leafhoppers, Spider Mites, Thrips	1.5 - 3 pints	7 days.
SPINACH	Aphids	2 pints	7 days.
SQUASH	Aphids, Leaf Miners, Spider Mites, Pickleworms	2 pints	1 day. Do not treat unless plants are dry.
	Cucumber Beetle, Squash Vine Borer	3 pints	
SWEET CORN	Japanese Beetle	2 pints	5 days. Injury may occur in the whorl or to the silks.
SWEET POTATOES, YAMS	Leafhoppers	1.5 - 2 pints	3 days.
	Morningglory Leaf Miner	2.5 - 3 pints	
TOMATOES TOMATILLOS	Aphids	1.5 pints	1 day.
	Drosophila Spider Mites	2.5 pints 1.5 pints	
	Armyworms & Fruitworms in CA only	2.75 pints	3 days.
TURNIP (root, tops) BROCCOLI RAAB	Aphids, Cabbage Loopers, Imported Cabbageworm	1 - 2 pints	7 days. For caterpillars on summer and fall plantings, in the south, apply when true leaves appear. On other plantings, and for other insects, apply when insects appear.
WATERCRESS	Aphids Serpentine Leaf Miners, Thrips	1.5 - 2 pints	7 days. Spray plants thoroughly.

#### FRUIT AND NUT CROPS

CROP	PEST CONTROLLED	RATE/100 GALLONS OF SPRAY	(RATE/ACRE)	PREHARVEST INTERVAL
ALMONDS	Aphids Spider Mites	1-2 pints	2-4 pints	May be applied on the day of harvest.

	Peach Twig Borer	1-1.5 pints	2-3 pints	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.
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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 FYFANON 57EC per acre to almond trees.

APPLES	Budmoth Forbes scale Woolly apple aphid	1 pint	4 pints	3 days
	Eastern tent caterpillar	1-1.5 pints	4-6 pints	
	Green apple aphid	1.5 pints	6 pints	
	Rosy apple aphid	2 pints	8 pints	
	Codling moth Plum curculio Red-banded leafroller			
	Mealybug Mites, such as Clover mite, European red mite, Twospotted spider mite, Willamette mite	1-2 pints	4-8 pints	

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.

FYFANON 57EC 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 + 1 gallon superior oil		Make full coverage dormant or delayed dormant applications only.
APRICOTS	Aphids, Codling Moth, European	1.5 - 2 pints	4.5-6 pints	7 days

	Fruit Lecanium, Orange Tortrix, Soft Brown Scale, Terrapin Scale			
The rate for use on apricots is based on a standard of 300 gallons per acre dilute spray for mature trees.				
AVOCADO	Greenhouse Thrips Latnia Scale, Omnivorous Looper, Orange Tortrix, Soft Brown Scale	1.5 pints	7.5 pints	7 days
The rate for use on avocado is based on a standard of 500 gallons per acre dilute spray for mature trees.				
BLACKBERRY BOYSENBERRY LOGANBERRY RASPBERRY	Aphids, Rose scale Chafers, Japanese Beetle, Leafhoppers Mites, Thrips	1.5 pints	3 pints	1 day
The rates for use on brambles are based on a standard of 200 gallons per acre dilute spray.				
BLUEBERRIES	Blueberry Maggots	1 pint + 1.5 quarts Staleys Sauce bait 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	2 pints	1 day
	Cranberry Fruitworm	1 pint	2 pints	Make first application at egg hatch and repeat applications every 4 or 5 days until a total of four applications has been made. Do not apply within 1 day of harvest.
	Japanese Beetle	0.75 pints	1.5 pints	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 (Sweet, Sour)	Black Cherry Aphid, Fruit Tree Leafroller	1.5 pints	6 pints	3 days Injury may occur on certain varieties of sweet cherries, particularly in the Northwest.
	Japanese Beetle Cherry Fruit Fly	1 pint	4 pints	
The rates for use on cherries are based on a standard of 400 gallons per acre dilute spray for mature trees.				
Injury may occur on certain varieties of sweet cherries, particularly in the Northwest.				
CHESTNUT	Mites	1 - 1.5 pints		12 hours. Treat when mites appear in numbers and repeat in 7-10 days. Do not treat after shucks split and do not graze treated areas.
CURRANTS GOOSEBERRIES	Japanese Beetle	1.5 pints	3 pints	3 days
	Rose Chafer Mites	1 pint	2 pints	
The rates for use on currants and gooseberries are based on a standard of 200 gallons per acre dilute spray.				
FIGS	Dried Fruit Beetle, Vinegar Flies		2 quarts + 1-2 gal. unsulfured molasses	3 days
FILBERTS	Apple mealybug Eye-spotted bud moth Filbert aphids Tingids Scales (crawler stages)	1 pint	4 pints	3 days
GRAPES	Leafhoppers Spider mites	1 ½ pints	3 pints	3 days
	European fruit lecanium	1 ½ pints		3 days. Make full coverage applications when

	Mealybugs		1 ½ pints	newly hatched nymphs are migrating over vines, usually shortly after bloom.  3 days. Apply in 50-100 gallons of water per acre.
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 FYFANON 57EC are applied after clusters appear.				
GRAPE VINES (overwintering on nursery stock only)	Grape Phylloxera	3 pints		Remove excess soil from roots and dip in the Fyfanon solution for 5 minutes. Agitate solution at all times.
GUAVA MANGO PASSION FRUIT	Drosophila	0.75 pints	30-40 gallons	2 days.
MACADAMIA NUTS	Green Stink Bugs	1.5 pints		12 hours. Apply when insects start to feed on the nuts and repeat as necessary.
No more than 15 lbs of actual FYFANON 57EC per acre should be applied to macadamia nut trees.				
MELONS casaba, crenshaw, honeydew, honeyballs, muskmelons, Persian melons and hybrids, watermelons and hybrids, cantaloupe	Aphids, Spider Mites	1.5 - 2 pints		1 day. Don't treat unless plants are dry.
	Cucumber Beetles	2 - 3 pints		
	Leaf Miners	2 pints		
	Leafhoppers	1.5 - 2 pints		
	Pickleworms	2 pints		
	Squash Vine Borer	3 pints		
NECTARINES	Spider Mites	1-2 pints	3-6 pints	7 days
	Plum Curculio	2	6 pints	
The rates for use on nectarines are based on a standard of 300 gallons per acre dilute spray for mature trees.				

FYFANON 57EC may cause fruit spotting on nectarines.				
PAPAYA	Aphids, Mealybugs	1.5 - 2 pints		12 hours.
PEACHES	Black Cherry Aphid, Black Peach Aphid, European Red Mite, Green Peach Aphid, Rusty Plum Aphid, Japanese Beetle, Spider Mite	1 pint (3	3 pints	7 days
	Oriental Fruit Moth, Plum Curculio	2 pints	6 pints	
	Cottony Peach Scale, European Fruit Lecanium, Terrapin Scale	2 pints		
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 FYFANON 57EC per acre to peach trees.				
PEARS	Aphids Mealybugs, Mites, Pear psylla	1 pint 1-2 pints	3 pints 3-6 pints	1 day.
	Codling moth, Fruittree Leafroller, Plum Curculio, Red- banded Leafroller	2 pints	6 pints	
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	1.5 - 2 pints	7.5-10 pints	12 hours.
	European Red Mite	1.25 pints	6.25 pints	12 hours.
	Pecan Phylloxera	1.25 pints	6.25 pints	12 hours. Apply when buds begin to develop and repeat as



	Pecan Nut Casebearer, Walnut Husk Fly	1.25 pints	6.25 pints	needed.  12 hours. Apply when 1st generation eggs begin to hatch.
The rates for use on pecans are based on a standard of 500 gallons per acre dilute spray for mature trees 25 - 35 feet high.				
PLUMS AND PRUNES	Mealy plum aphid	1 pint	8 pints	7 days
	Plum curculio	3 pints	3 pints	3 days. 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.
The rates for use on plums and prunes are based on a standard of 300 gallons per acre dilute spray for mature trees.				
PINEAPPLE	Mealybug	1 pint	8 pints	7 days
QUINCE	Codling moth	2 pints	6 pints	3 days
	Oriental fruit moth			
	Plum curculio			
	Spider mites	1-2 pints	3-6 pints	Make full coverage applications when crawlers are present, about first or second cover and last half of July.
Forbes scale	1 pint			
The rates for use on Quince are based on a standard of 300 gallons per acre dilute spray for mature trees.				
STRAWBERRIES	Aphids, Spider Mites	1.5 pints		3 days.

	Field Crickets, Lygus Bugs, Spittle Bugs, Thrips	1.5 - 3 pints		
	Potato Leafhopper, Strawberry Leafroller, Strawberry Root Weevil, White Flies	1.5 - 2 pints		
WALNUTS	Aphids, European Red Mites, Walnut Aphid Walnut Husk Fly	0.5 pint	1.5-3 pints	12 hours.
			1.5-3 pints	12 hours. Apply with conventional sprayer. For bait sprays, combine Staley's Sauce Base No. 2 or No. 7 at 4 pints per acre with FYFANON 57EC.
			3-4 pints	12 hours. Apply in 500 gal. of water/acre with air carrier type sprayer. For bait sprays, combine Staley's Sauce Base No. 2 or No. 7 at 4 pints per acre with FYFANON 57EC.

**FIELD CROPS, PASTURE, RANGE GRASSES**

<b>CROP</b>	<b>PEST CONTROLLED</b>	<b>RATE / ACRE</b>	<b>PRE-HARVEST INTERVAL</b>
ALFALFA CLOVER LESPEDeza SAINFOIN BIRDSFOOT TREFOIL	Alfalfa Weevil Larvae, Aphids, Grasshoppers, Lygus Bugs, Potato Leaf Hoppers, Spider Mites, Spittlebugs, Stink Bugs, Pea Aphid,	1.5 - 2 pints	0 day. Apply to blooming alfalfa only in early morning or evening when bees are not working field or not hanging on outside of hives.

	Armyworms Clover Leaf Weevil Vetch Bruchid	2 pints 1.5 pints 2 - 2.5 pints	Do not apply to clover in bloom.
CORN (grain or forage)	Aphids, Corn Earworms, Corn Rootworm Adults, Grasshoppers, Sap Beetle, Thrips  Armyworms	1.5 pints  1.5 - 2 pints	5 days. For corn earworm and sap beetles, treat when 10% of the ears show silk. Repeat at 3-5 day intervals until 4-5 treatments have been made. Injury may occur in the whorl silk stages.
COTTON	Brown Cotton Leafworm, Cotton Aphid, Cotton Leafworm, Cotton Leaf Perforator, Desert Spider Mite, Leafhoppers, Lygus Bugs, Thrips, Whiteflies  Boll Weevil  Cotton Fleahoppers  Fall Armyworms, Garden Webworms, Grasshoppers  Lygus Bugs, Thrips	0.5 - 2 pints  2 - 4 pints  1 - 1.5 pints  1.5 - 3 pints  4 pints	12 hours. Consult local agricultural authorities for exact time of application.
GRAIN SORGHUM	Greenbugs	1.5 pints	7 days of harvest or forage use.
GRASSES, HAY (barnyard grass, canary grass, fescue, orchardgrass, red top, timothy, yellow foxtail)	Cereal Leaf Beetle	1.5 pints	0 day (harvest or grazing).
PASTURE RANGE GRASS	Aphids, Grasshoppers, Leafhoppers	1.5 - 2 pints OR 1.5 pints in 1 gal. diesel, fuel oil or other suitable	0 day

		solvent/acre	
	Armyworms	2 pints, OR 1.5 pints in 1 gal. diesel, fuel oil or other suitable solvent/acre	0 day
RICE WILD RICE	Rice Leaf Miner	2.5 pints	7 days. Treat for leaf miners shortly after first rice blades appear on surface of the water and repeat if necessary.
	Rice Stink Bug	1 - 1.5 pints	Apply by air in 2 gpa during early milk and dough stage. Repeat as necessary.  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.
SMALL GRAINS barley, oats, popcorn, rye, triticale, wheat	Cereal leaf beetle	1 - 1.5 pints	7 days (harvest or forage).
	English Grain Aphids, Grasshoppers, Greenbugs	1.5 pints	
	Winter Grain Mites	2 pints	
SOYBEANS	Green cloverworms Mexican bean beetle	3 pints	0 day
SUGAR BEETS	Aphids Spider mites	1.5-2 pints	7 days
	Grasshoppers	3 pints	
VETCH	Omniverous leaf tier Pea ahphid Vetch bruchid	1.5-2 pints	0 day

**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 areas 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.

PEST CONTROLLED	RATE	DIRECTIONS FOR USE
Adult flies	Straight sprays: 5 tablespoons+1 gallon water or 1 cup + 2 ½ gallon water or 1 quart + 12 gallon 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+7 tablespoons sugar or molasses (unsulfurized) or corn syrup+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	Apply as a bait spray over the surface of 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 adults	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.
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**OUTDOOR ORNAMENTALS:**

**Flowers, Shade Trees, Shrubs, Nursery Stock, Turf Farms**

Injury may occur on ferns, hickory, viburnum, lantana, crassula and Canareti juniper. Slight injury has also been reported on Boston, pteris and maidenhair ferns, petunias, small-leaf spirea, white pine and maples. When stressed by extreme heat, drought and disease, slight damage may occur on elms.

PEST CONTROLLED	RATE/100 GALLONS WATER (PER 1 GALLON)	COMMENTS
Aphids, Spider Mites	1.5 pints (2 teaspoons)	
Bagworms, Birch Leaf Miner, Boxwood Leaf Miner	2 pints (2 teaspoons)	
European Pine Shoot Moth, Four-lined Leaf Bug, Japanese Beetle Adult, Potato Leafhopper, Rose Leafhopper, Tarnished Plant Bug Thrips	1.5 pints (2 teaspoons)	
Lace Bug	1 pint(2 teaspoons)	
Mealybugs, Whiteflies	1.5 pints(2 teaspoons)	
Oak Kermes	2 pints (2 teaspoons)	
Tent Caterpillar	2 pints (2 teaspoons)	
Oyster Shell Scale	1 pint (2 teaspoons)	Apply when scale crawlers have settled on foliage.
Euonymus Scale, Scurfy Scale	1.5 pints (2 teaspoons)	
Azalea Scale, Magnolia Scale, Pine Leaf scale	2 pints (2 teaspoons)	
Fletcher Scale, Florida Red Scale, Juniper Scale	2 pints (2 teaspoons)	Apply when scale crawlers have settled on foliage
Black Scale Crawlers, Soft Brown Scale	2.25 pints (2 teaspoons)	
Monterey Pine Scale	2.5 pints (2 teaspoons)	
Pine Needle Scale	4 pints (4 teaspoons)	
Wax Scale	4 pints (4 teaspoons)	Apply in spring when crawlers are active. Repeat 1 or 2 full coverage applications at 10 day intervals.
Millipedes, Sowbugs, Springtails	1 pint (1 teaspoon)	Apply to 150 sq. ft. of soil surface or where insects

		gather. Repeat at 10 day intervals as needed.
Ant Mounds	1.5 pints per 100 gal. water	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 - 4 quarts per 100 gal. water	Make full coverage application to soil surface when ground pearl nymphs are in the pink, crawler or active stage and immediately wash into the soil with additional water.

**TREE PLANTATIONS**

CROP	PEST CONTROLLED	RATE / ACRE	COMMENTS
SLASH PINES, PINE SEED ORCHARDS, CHRISTMAS TREE PLANTATIONS	Pine Needlesheath Miner	1.5 pints	Apply by ground or aerial equipment in 25 gal. water. Make application when air is calm and temperature is below 68°F. Apply when 75% of larvae have left over-wintering pines.

**STORED GRAIN FACILITIES**

Residual Spray Before Storing Barley, Corn, Oats, Rice, Rye or Wheat

PESTS CONTROLLED	RATE	DIRECTIONS
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 / 25 gal. water	Before applying spray, clean elevators, box cars, etc. thoroughly. Remove and burn all sweeping and debris. For a residual wall, floor and machinery spray in grain elevators, truck beds, box cars and ships' hold, before loading grain, make a thorough application.

7-25-08