



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

August 23, 2023

Bill Washburn  
Registration Manager  
Helena Agri-Enterprises, LLC  
d/b/a Helena Chemical Company  
225 Schilling Boulevard, Suite 300  
Collierville, TN 38017

Subject: Registration Review Label Amendments Incorporating Mitigation from the Fish and Wildlife Services (FWS) and the National Marine Fisheries Services (NMFS) Biological Opinions on the Effects of Malathion on Endangered and Threatened Species and Designated Critical Habitat  
*Product Name:* FYFANON MALATHION INSECTICIDE  
*EPA Registration Number:* 5905-196  
*Application Dates:* 5/25/2022 and 9/14/2022  
*Decision Numbers:* 584979 and 589925

Dear Bill Washburn:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the FWS and NMFS' Biological Opinions on the effects of malathion on federally listed endangered and threatened species and designated critical habitat in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). The Agency has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling

before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions, please contact Carolyn Smith by phone at (202) 566-2273 or via email at [smith.carolyn@epa.gov](mailto:smith.carolyn@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Kelly Sherman", with a stylized flourish at the end.

Kelly Sherman  
Chief, Risk Management Implementation Branch 3  
Pesticide Re-evaluation Division  
Office of Pesticide Programs

Enclosure

# FYFANON<sup>®</sup>

## MALATHION INSECTICIDE

**ACTIVE INGREDIENT:**  
 Malathion: O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate .....57.33%

**OTHER INGREDIENTS\*** .....42.67%

**TOTAL**.....100.00%

\*Contains petroleum distillates.

(ONE GALLON OF FYFANON CONTAINS 5 POUNDS OF MALATHION)

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING – AVISO**

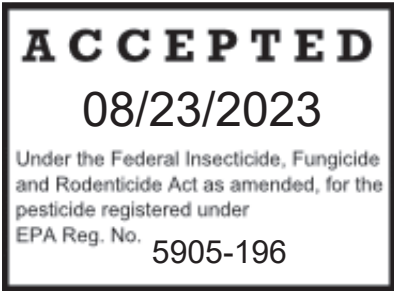
Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle. (If you do not understand the label, find someone to explain it to you.)

<b>FIRST AID</b>
<b>Organophosphate</b>
<b>IF IN EYES:</b> <ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye.</li> </ul> Call a poison control center or doctor for treatment advice.
<b>IF SWALLOWED:</b> <ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor.</li> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b> <ul style="list-style-type: none"> <li>Take off contaminated clothing</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment</li> </ul>
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.
<b>NOTE TO PHYSICIAN</b> Contains petroleum distillates. May pose an aspiration pneumonia hazard. Contains an organophosphate that inhibits cholinesterase. Atropine is antidotal. 2PAM may be effective as an adjunct to atropine.
<b>SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONS AND DIRECTIONS FOR USE.</b>

SN 082912  
 EPA REG. NO. 5905-196  
 EPA EST. NO. First letters of batch code indicate producing establishment:  
 5905-GA-1=CG • 5905-AR-1=WA • 5905-IA-1=DI • 5905-CA-1=KC

NET CONTENTS:

**MANUFACTURED FOR**  
**HELENA AGRI-ENTERPRISES, LLC**  
 225 SCHILLING BOULEVARD, SUITE 300  
 COLLIERVILLE, TENNESSEE 38017  
 PHONE: 901-761-0050



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING**

Causes substantial but temporary eye injury. Do not get in eyes. Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin and 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 barrier laminate, butyl rubber, nitrile rubber, or viton. If you want more options, follow the instructions for category **F** on an EPA chemical-resistance 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)
- Goggles or face shield

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.

Reporting Ecological Incidents: To report ecological incidents, including mortality, injury, or harm to plants and animals, call 901-761-0050.

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 toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

This product is highly toxic to bees exposed to direct treatment or residues 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. In citrus, stone fruit, pome fruit and tree nuts: Do not apply this product within 3 days prior to bloom, during bloom, or until petal fall is complete.

**Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.**

## 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.

Outdoor non-agriculture use sites:

- Do not apply by ground within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, wetlands or natural ponds, estuaries, and commercial fish farm ponds).
- Do not spray the product into apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, wetlands or natural ponds, estuaries, and commercial fish farm ponds).
- Do not apply directly to or allow the product to enter sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.
- Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment.
- Do not apply to vertical surfaces directly above pervious or impervious surfaces that drain into ditches, storm drains, gutters, or surface waters.
- Do not apply or irrigate to the point of runoff.

For agriculture use sites:

### **Non-ULV Ground Application (includes ground boom and airblast applications)**

Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, wetlands, ponds, estuaries, and commercial fish ponds). You must follow the instructions for additional buffer distances beyond the 25 feet, as applicable, per the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email [ESPP@epa.gov](mailto:ESPP@epa.gov).

### **Non-ULV Aerial Application**

Do not apply within 50 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, wetlands, ponds, estuaries, and commercial fish ponds). You must follow the instructions for additional buffer distances beyond the 50 feet, as applicable, per the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email [ESPP@epa.gov](mailto:ESPP@epa.gov).

Do not apply this product when soil is saturated, or when a storm event likely to produce runoff from the treated area is forecasted (by NOAA/National Weather Service, or other similar forecasting service) to occur within 48 hours following application.

For use only by federal, state, tribal or local government officials responsible for insect control or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory Agency to perform grasshopper/Mormon Cricket, Beet Leafhopper or Boll Weevil control applications, or by persons under their supervision, or as allowed by state regulations for persons treating private property.

### **Endangered Species**

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email [ESPP@epa.gov](mailto:ESPP@epa.gov). You must use the Bulletin valid for the month in which you will apply the product.

Reporting Ecological Incidents: To report ecological incidents, including mortality, injury, or harm to plants and animals, call 901-761-0050.

Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices include applying pesticides in the evening and at night when pollinators are not foraging and avoiding applications to flowering plants. For additional resources on pollinator best management practices, visit <https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators>.

Managed pollinator protection plans are developed by states/tribes to promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.

How to Report Bee Kills. It is recommended that users contact both the state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at [beekill@epa.gov](mailto:beekill@epa.gov). To contact your state lead agency, see the current listing of state pesticide regulatory agencies at the National Pesticide Information Center's website: "[http://npic.orst.edu/reg/state\\_agencies.html](http://npic.orst.edu/reg/state_agencies.html)".

#### **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:

- Coveralls
- 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 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.

#### **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. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

#### **TEMPERATURE INVERSION**

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 should use a coarser droplet size.

#### **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**

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.

### MANDATORY SPRAY DRIFT MANAGEMENT

#### Non-Ultra Low Volume (ULV) Aerial Applications:

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators must select nozzle and pressure that deliver medium or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard (ASABE S641).
- If the windspeed is 10 miles per hour or less, applicators must use 3/4 swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use a full swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

#### Airblast applications:

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- Do not apply during temperature inversions.

#### Ground Boom Applications:

- Do not release spray at a height greater than 4 feet above the ground or crop canopy.
- Applicators must select nozzle and pressure that deliver medium or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE S572).
- Do not apply when wind speeds exceed 10 mph at the application site.
- Do not apply during temperature inversions.

### RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, **FYFANON® MALATHION INSECTICIDE** contains a Group 1B insecticide. Any insect population may contain individuals naturally resistant to **FYFANON® MALATHION INSECTICIDE** and other Group 1B insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of **FYFANON® MALATHION INSECTICIDE** or other Group 1B insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following Page 11 of 18 recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.



- Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
  - Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
  - Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
  - For further information or to report suspected resistance contact Helena Agri-Enterprises, LLC at 901-761-0050 or at [www.helenaagri.com](http://www.helenaagri.com) .



## 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 (lb ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
<b>Alfalfa</b>	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					
<ul style="list-style-type: none"> <li>Apply to blooming alfalfa only in early morning or evening when bees are not working field or not hanging on outside of hives.</li> <li>*Apply when day temperature is expected to be above 65°F and when 50-70% of leaves show damage. Do not apply to alfalfa in bloom.</li> </ul>							
<b>Apricots</b>	Aphids; codling moth; European fruit lecanium; orange tortrix; soft brown scale; terrapin scale	2 pints	1.5	2	7	6	12 hrs
<ul style="list-style-type: none"> <li>Do not apply this product within 3 days prior to bloom, during bloom, or until petal fall is complete.</li> </ul>							
<b>Avocado</b>	Greenhouse thrips latnia scale; omnivorous looper; orange tortrix; soft brown scale	7.5 pints	4.7	2	30	7	2 days
<ul style="list-style-type: none"> <li>Application rates are based on a standard dilution rate of 500 (ground) gallons of water/A.</li> </ul>							
<b>Barley</b>	Cereal leaf beetle; English grain aphids; grasshoppers; greenbugs; winter grain mites	1-2 pints	1.25	2	7	7	12 hrs
<b>Beets, garden</b>	Aphids	1.5-2 pints	1.25	3	7	7	12 hrs
<ul style="list-style-type: none"> <li>Do not apply to Sugar Beets.</li> </ul>							
<b>Blueberry (high bush and low bush)</b>	Blueberry maggots; cherry fruit worm; cranberry fruit worm; Japanese beetle	2 pints	1.25	3	5	1	12 hrs
<ul style="list-style-type: none"> <li>The rates for use on blueberries are based on a standard of 200 gallons per acre dilute spray.</li> </ul>							
<b>Broccoli; Chinese Broccoli; Broccoli Rabb</b>	Aphids; cabbage looper; imported cabbageworm; carrot weevil; flea beetle	1-2 pints	1.25	2	7	2	2 days
<b>Brussels sprouts</b>	Aphids; cabbage looper; imported cabbage worm; carrot weevil; flea beetle	1-2 pints	1.25	2	7	2	2 days

Crop	Pests Controlled	Rate/Acre	Max. Single App. Rate (lb ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
<b>Cabbage</b>	Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle	1-2 pints	1.25	3	7	7	2 days
<ul style="list-style-type: none"> <li>For caterpillars on summer and fall plantings, begin when true leaves appear. On other plantings for listed insects, apply when first appear.</li> </ul>							
<b>Chinese cabbage</b>	Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle	1-2 pints	1.25	2	7	7	2 days
<ul style="list-style-type: none"> <li>For caterpillars on summer and fall plantings, begin when true leaves appear. On other plantings for listed insects, apply when first appear.</li> </ul>							
<b>Caneberries (blackberry; boysenberry; dewberry; gooseberry; loganberry; raspberry)</b>	Aphids; rose scale chafers; Japanese beetle; leafhoppers; mites; thrips	3 pints	2.0	3	7	1	12 hrs
<ul style="list-style-type: none"> <li>Application rates are based on a standard dilution rate of 200 (ground) gallons of water/A.</li> </ul>							
<b>Cucumber</b>	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
<b>Celery</b>	Aphids; spider mites	2.4 pints	1.5	2	7	7	24 hrs
<b>Cherries (sweet and tart)</b>	Black cherry aphid; fruit tree leafroller; Japanese beetle; cherry fruit fly; eyespotted bud moth	2.8 pints	1.75	4	3	3	12 hrs
<ul style="list-style-type: none"> <li>Application rates are based on a standard dilution rate of 400 (ground) gallons of water/A for mature trees. Injury may occur on sweet cherries, particularly in the Northwest.</li> <li>Do not apply this product within 3 days prior to bloom, during bloom, or until petal fall is complete.</li> </ul>							
<b>Citrus Fruits (grapefruit; lemon; lime; orange; tangerine; tangelo)</b>	Thrips; California red scale; yellow scale; purple scale; black scale; soft scale; citricola scale	<b>All states other than CA:</b>					
		4.5 pints or 1.5 pints	4.5 or 1.5	1  3	N/A  30	7	3 days or 12 hrs
		<b>CA only:</b>					
		7.5 pints or 1.5 pints	7.5 or 1.5	1  3	N/A  30	7	3 days or 12 hours

- Use the higher rate for heavy infestation.
- Apply with sufficient water to obtain full coverage of foliage. Apply in a minimum of 200 gallons of water per acre by ground, and up to 500 gallons of water per acre for mature trees. Use higher volumes of water as appropriate to ensure thorough coverage of foliage, depending on density and size of area to be treated.
- Do not apply this product within 3 days prior to bloom, during bloom, or until petal fall is complete.

Crop	Pests Controlled	Rate/Acre	Max. Single App. Rate (lb ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
<b>Clover</b>	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 4 applications per year	14	0	12 hrs
	Armyworms Clover leaf weevil Vetch buchid	2 pints 1.5 pints 2 pints					
<ul style="list-style-type: none"> <li>• Do not apply to clover in bloom.</li> </ul>							
<b>Collards</b>	Aphids; harlequin cabbage bug; smaller cabbage looper; leaf hoppers; leaf miners	1.5 pints	1.0	3	7	7	12 hrs
<b>Corn (field)</b>	Aphids; corn earworms; corn rootworm adults; young grasshoppers; sap beetle; thrips;	1.5 pints	1.0	2	7	7	3 days for detasseling; 12 hrs for all other activities
<b>Corn (sweet and pop)</b>	smaller armyworms; leaf hopper			2	5	5	3 days for detasseling; 12 hrs for all other activities
<ul style="list-style-type: none"> <li>• For corn earworm and sap beetles, treat when 10% of the ears show silk.</li> <li>• Injury may occur in the whorl silk stages.</li> </ul>							
<b>Cotton</b>	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	2.5	2	7	7	2 days
	Boll weevil	2-4 pints					
	Cotton fleahoppers	1-1.5 pints					
	Lygus bugs; thrips	4 pints					
<ul style="list-style-type: none"> <li>• Use higher rates for larger insects or heavy infestations.</li> </ul>							

Crop	Pests Controlled	Rate/Acre	Max. Single App. Rate (lb ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
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
Garlic	Aphids; thrips	1.5-2.5 pints	1.56	2	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
<ul style="list-style-type: none"> <li>Do not apply directly to grain.</li> <li>Before applying spray, clean thoroughly.</li> <li>Remove and burn all sweeping and debris.</li> <li>For a residual wall, floor and machinery spray in grain elevators and silos, before loading grain, make a thorough application.</li> </ul>							
Grapes (raisin, table, wine)	Leafhoppers; spidermites; European fruit lecanium*; Drosophilia; Japanese beetle; terrapin scale	3 pints	1.88	2 for grapes 1 for grape vines	14	3	3 days for girdling and tying 24 hrs for all other activities
	Mealybugs	1 ½ pints					
Grape Vines (overwintering on root stock only)	Grape phylloxera	3 pints per 100 gallon					
<ul style="list-style-type: none"> <li>Application rates are based on a standard dilution rate of 200 (ground) gallons of water/A.</li> <li>Injury may occur on grapes of Almeria, Cardinal, Italia and Ribier varieties when sprays containing Fyfanon Malathion Insecticide are applied after clusters appear.</li> <li>Remove excess soil from roots and submerge entire root system in the Fyfanon solution for 5 minutes.</li> <li>Agitate solution at all times.</li> </ul> <p>* Make full coverage applications when newly hatched nymphs are migrating over vines, usually shortly after bloom.</p>							

Crop	Pests Controlled	Rate/Acre	Max. Single App. Rate (lb ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
<b>Grass, forage, hay (Bermuda, barnyard grass, canary grass, fescue, orchardgrass, red top, timothy, yellow foxtail)</b>	Cereal leaf beetle; aphids; leafhoppers; grasshoppers	2 pints	1.25	1 per cutting 4 applications per year	14	0	12 hrs
<b>Horseradish</b>	Aphids; diamondback moth; flea beetles; leafhoppers	1.5-2 pints	1.25	2	7	7	24 hrs
<b>Kale</b>	Aphids; cabbage looper; imported cabbageworm; webworm; diamondback moth	1.5 pints	1.0	3	5	7	12 hrs
<b>Kohlrabi</b>	Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle	1-2 pints	1.25	2	7	7	24 hrs
<b>Kumquats</b>	Thrips; California red scale; yellow scale; purple scale; black scale; soft scale; citricola scale	4.5 pints	4.5	1	N/A	7	2 days
<ul style="list-style-type: none"> <li>Apply with sufficient water to obtain full coverage of foliage. Apply in a minimum of 200 gallons of water per acre by ground, and up to 500 gallons of water per acre for mature trees. Use higher volumes of water as appropriate to ensure thorough coverage of foliage, depending on density and size of area to be treated.</li> <li>Do not apply this product within 3 days prior to bloom, during bloom, or until petal fall is complete.</li> </ul>							
<b>Leek</b>	Aphids Onion maggot flies	1.5-2.5 pints	1.56	2	7	3	24 hrs
<b>Lettuce (head)</b>	Aphids; leafhoppers; spider mites; cabbage lopper	3 pints	1.88	2	6	14	24 hrs
<b>Lettuce (leaf)</b>		2.5-3 pints	1.88	2	5	14	24 hrs
<b>Mint</b>	Aphids; flea beetles; leafhoppers; spider mites; caterpillars	1.5 pints	0.84	2	7	7	12 hrs
<b>Mustards (mustard greens; mustard spinach; Chinese mustard mizuna)</b>	Aphids; cabbage looper; imported cabbageworm; webworm; diamondback moth	1.5 pints	1.0	3	5	7	12 hrs

Crop	Pests Controlled	Rate/Acre	Max. Single App. Rate (lb ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
<b>Nectarines</b>	Spider mites; plum curculio	1-2 pints	3.0	2	7	7	24 hrs
	Aphids*; Japanese beetles*	4-4.8 pints					
<ul style="list-style-type: none"> <li>• Application rates are based on a standard dilution rate of 300 (ground) gallons of water/A.</li> <li>• Do not apply this product within 3 days prior to bloom, during bloom, or until petal fall is complete.</li> <li>• Fyfanon Malathion Insecticide may cause fruit spotting on nectarines.</li> </ul> <p>* May be mixed with spray oil for dormant and delayed dormant applications. Follow spray oil manufacturer's directions.</p>							
<b>Oats</b>	Cereal leaf beetle; English grain aphids; young grasshoppers; greenbugs	1.5 pints	1.0	2	7	7	12 hrs
<b>Okra</b>	Aphids Japanese beetle	1.5 pints 1.9 pints	1.2	5	7	1	12 hrs
<b>Onion (bulb and green)</b>	Onion maggots	1.5-2.5 pints	1.56	2	7	3	12 hrs
	Onion thrips	1.5-2 pints					
<b>Parsnip</b>	Aphids; cabbage looper; imported cabbageworm; diamondback moth; webworm; carrot weevil; flea beetle	1.5-2 pints	1.25	3	7	7	24 hrs
<b>Peaches</b>	Black cherry aphid; black peach aphid; European red mite; green peach aphid; rusty plum aphid; Japanese beetle; spider mite	2.4 pints	3.0	2	11	7	24 hrs
	Oriental fruit moth; plum curculio; cottony peach scale; European fruit lecanium; terrapin scale	4.8 pints					
<ul style="list-style-type: none"> <li>• Application rates are based on a standard dilution rate of 300 (ground) gallons of water/A.</li> <li>• Do not apply more than 9 pounds of actual Fyfanon Malathion Insecticide per acre per year to peach trees.</li> <li>• Do not apply this product within 3 days prior to bloom, during bloom, or until petal fall is complete.</li> </ul>							
<b>Peas (dried, green)</b>	Pea weevils; aphids	1.5 pints	1.0	2	7	3	12 hrs
<b>Pecans</b>	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
<ul style="list-style-type: none"> <li>• Application rates are based on a standard dilution rate of 500 (ground) gallons of water/A for mature trees 25-35 feet high.</li> <li>• Do not apply this product within 3 days prior to bloom, during bloom, or until petal fall is complete.</li> </ul> <p><sup>1</sup> Apply when buds begin to develop. <sup>2</sup> Apply when first generation eggs begin to hatch.</p>							

Crop	Pests Controlled	Rate/Acre	Max. Single App. Rate (lb ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
<b>Peppers</b>	Aphids Pepper maggots	1-2.5 pints 2.5 pints	1.56	2	5	3	12 hrs
<b>Potatoes</b>	Aphids; grasshoppers; leafhoppers	2 pints	1.56	2	7	0	12 hrs
	False chinch bug	1.5 pints					
	Mealybugs	2-2.5 pints					
<b>Radish</b>	Aphids	1.5 pints	1.0	2	7	7	12 hrs
<b>Rutabagas</b>	Aphids	1.5 pints	1.0	2	7	7	12 hrs
<b>Rice Rice (wild)</b>	Rice stink bug; rice leaf miner	2 pints	1.25	2	7	7	12 hrs
<ul style="list-style-type: none"> <li>• Treat for leafminers shortly after first rice blades appear on surface of the water.</li> <li>• For leafminers, apply when the eggs and larvae are abundant on the seedling rice.</li> <li>• Apply during early milk and dough stage using a minimum of 2 (aerial) gallons of water/A.</li> <li>• Do not apply Propanil within 15 days of malathion treatment.</li> <li>• A 24-hour holding time is required before floodwaters may be released after treatment to rice.</li> </ul> <p><b>NOTE FOR AQUATIC USES (rice):</b> 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.</p>							
<b>Rye</b>	Cereal leaf beetle	1-1.5 pints	1.0	2	7	7	12 hrs
	English grain aphids; young grasshoppers; greenbugs	1.5 pints					
<b>Salsify</b>	Aphids; imported cabbage worm; cabbage looper; carrot weevil; flea beetles; leafhoppers; spider mites; thrips	1-2 pints	1.25	3	7	7	24 hrs
<b>Shallot</b>	Aphids; thrips;	2.5 pints	1.56	2	7	3	24 hrs
<b>Sorghum</b>	Greenbugs	1.5 pints	1.0	2	7	7	12 hrs
<b>Spinach</b>	Aphids	1.5 pints	1.0	2	7	7	12 hrs
<b>Squash, summer</b>	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
<b>Squash, winter</b>	Aphids	1.5 pints	1.0	3	7	1	12 hrs
<b>Strawberry</b>	Aphids; spider mites; Field crickets; lygus bugs; spittle bugs; thrips; potato leafhopper; strawberry leafroller; strawberry root weevil; white flies; thrips	1.5-3.2 pints	2.0	4	7	3	12 hrs



Crop	Pests Controlled	Rate/Acre	Max. Single App. Rate (lb ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
<b>Sweet Potatoes</b>	Leafhoppers; Morningglory leaf miner	1.5-2.5 pints	1.56	2	7	0	12 hrs
<b>Swiss chard</b>	Aphids	1.5 pints	1.0	2	7	14	12 hrs
<b>Tomatoes, Tomatillos</b>	Aphids; spider mites Drosophila	1.5 pints 2.5 pints	1.56	4	5	1	12 hrs
<ul style="list-style-type: none"> <li>Apply a full coverage application to fruit and foliage.</li> </ul>							
<b>Vetch</b>	Alfalfa weevil larvae; aphids; armyworms; clover leaf weevil; grasshoppers; lygus bugs; pea aphid; potato leafhoppers; spider mites; spittlebugs; vetch buchid; omnivorous leaf tier; pea aphid; vetch buchid	1-2 pints	1.25	1 per cutting 2 applications per year	14	0	12 hrs
<b>Watercress</b>	Aphids	2 pints or 1.6 pints	1.25 or 1.0	5	3	3	24 hrs or 12 hrs
<ul style="list-style-type: none"> <li>Do not apply when water is on the field.</li> <li>Do not irrigate until 24 hours after application.</li> </ul>							
<b>Wheat (Spring and Winter)</b>	Cereal leaf beetle	1-1.5 pints	1.0	2	7	7	12 hrs
	English grain aphids; young grasshoppers; greenbugs	1.5 pints					

#### NON-AGRICULTURAL OUTDOOR USE SITES

Site	FL. OZ./Acre	Max. Single App. Rate	Use Pattern Limitations	Restricted Entry Interval (days)
<b>Christmas tree plantations</b>	82	3.2 lb ai/A	Maximum of 2 applications per year	12 hrs
<ul style="list-style-type: none"> <li>Aerial application is prohibited.</li> <li>Do not apply more than two applications per year.</li> <li>Minimum retreatment interval is 7 days.</li> </ul>				
<b>Fence rows/hedge rows (State and Federal Programs Only)</b>	6	0.2439 lb ai/1000 ft <sup>2</sup>		
<b>Ornamental and/or shade trees</b>	64	2.5 lbs ai/100 gal	Maximum of 2 applications per year; 10 day minimum re-treatment interval	12 hrs
<b>Ornamental herbaceous plants</b>	64	2.5 lbs ai/100 gal		12 hrs
<b>Ornamental non-flowering plants</b>	64	2.5 lbs ai/100 gal		
<b>Ornamental woody shrubs and vines</b>	64	2.5 lbs ai/100 gal	Maximum of 2 applications per year/growing cycle; 10 day minimum re-treatment interval	12 hrs
<ul style="list-style-type: none"> <li>Spot treatment only</li> <li>Do not apply more than two applications per year.</li> <li>Minimum retreatment interval is 10 days.</li> </ul>				

Site	FL. OZ./Acre	Max. Single App. Rate	Use Pattern Limitations	Restricted Entry Interval (days)
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
<ul style="list-style-type: none"> <li>For use in slash pine seed orchards in Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Texas only.</li> <li>Malathion may be used to control thrips from mid-December to mid-March.</li> <li>Do not apply more than two applications per year.</li> <li>Minimum retreatment interval is 7 days.</li> <li>Do not apply by ground within 25 feet or by air within 50 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, wetlands or natural ponds, estuaries, and commercial fish farm ponds).</li> <li>For airblast applications, user must turn off outward pointing nozzles at row ends and when spraying outer row.</li> <li>For aerial applications, do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety. Applicators must use ½ swath displacement upwind at the downwind edge of the field.</li> <li>Do not apply when the wind speed is greater than 10 mph.</li> <li>Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (per ASABE S572 for ground and ASABE S641 for aerial).</li> <li>Do not apply during temperature inversions.</li> </ul>				

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE: FYFANON® MALATHION INSECTICIDE** 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 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 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.

#### 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 Agri-Enterprises, LLC (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 Agri-Enterprises, LLC's election, one of the following:

1. 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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