

66222-62

02/24/2009

1/17

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

FEB 24 2009

Christie Hitchcock
Registration Specialist
Makhteshim Agan of North America, Inc.
4515 Falls of Neuse Road, Suite 300
Raleigh, NC 27609

SUBJECT: Applications for Pesticide Notification – Several Label Updates, Including Updated
Warranty, per Pesticide Registration Notices (PRNs) 98-10 and 2007-4

Pramitol® 1.8L	EPA Reg. No. 66222-44 ✓
Application Dated June 23, 2008	
Pramitol® 2.2L	EPA Reg. No. 66222-45 ✓
Triflurex® HFP	EPA Reg. No. 66222-46 ✓
Pramitol® 1.8RTU	EPA Reg. No. 66222-52 ✓
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Applications Dated June 24, 2008	
Thionex® 50W	EPA Reg. No. 66222-62 ✓
Application Dated August 5, 2008	
Parallel® PCS	EPA Reg. No. 66222-86
Application Dated July 17, 2008	
Glyphogan® Herbicide	EPA Reg. No. 66222-105
Application Dated August 13, 2008	

Dear Ms. Hitchcock:

The Agency is in receipt of your Applications for Pesticide Notification under Pesticide Registration Notice (PRNs) 98-10 and 2007-4 for the above products. The Registration Division (RD) has conducted a review of these requests for their applicability under PRNs 98-10 and 2007-4, and finds that the actions requested fall within the scope of these PRNs. The labels submitted with the applications have been date-stamped "Notification" and will be placed in our records.

If you have any questions, please contact me directly at 703-305-6249 or Terri Stowe of my staff at 703-305-6117.

Sincerely,

Linda Arrington *for*
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs



United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 66222-62	2. EPA Product Manager Linda Arrington	3. Proposed Classification <input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted
4. Company/Product (Name) Thionex 50W Insecticide	PM# 13 Registration Support Branch	
5. Name and Address of Applicant (Include ZIP Code) Makhteshim Agan of North America, Inc. 4515 Falls of Neuse Rd., Suite 300 Raleigh, NC 27609 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

NOTIFICATION
FEB 24 2009

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of label change per PR Notice 98-10 and PR Notice 2007-4. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and with the guidance of PR Notice 2007-4 and requirements of EPA's regulations at 40 CFR §§156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make false statements to EPA. I further understand that if this notification/amended label is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, and the requirements of 40 CFR §§156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal	
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	<input checked="" type="checkbox"/> Plastic	
		If "Yes" Package wgt	No. per container	<input checked="" type="checkbox"/> Glass	
		1 lb	5	<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 50 lbs or less; more than 50 lbs		5. Location of Label Directions <input checked="" type="checkbox"/> on label	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input checked="" type="checkbox"/> Other Self-adhesive			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Christie Hitchcock		Title Regulatory Specialist	
		Telephone No. (Include Area Code) 919-256-9342	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature <i>Christie Hitchcock</i>		3. Title Regulatory Specialist	
4. Typed Name Christie Hitchcock		5. Date 08-05-08	

3/17



August 5, 2008

Document Processing Desk (NOTIF)
Registration Division (7504P)
OPP, USEPA
Ariel Rios Building
1200 Pennsylvania Ave, NW
Washington DC 20460

Re: Thionex 50W Insecticide, EPA Reg. No. 66222-62
Notification per PRN 98-10 and 2007-4

To Whom It May Concern:

We are notifying the Agency of several label updates as allowed in PR Notices 98-10 and 2007-4. The changes are summarized below:

- Added a voluntary marketing statement about use of an adjuvant (allowed per PRN 98-10, §II(N)(3))
- Updated container disposal instructions per PRN 2007-4

In support of this submission, the following documents are attached:

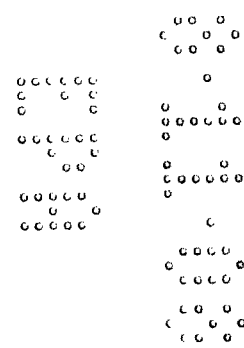
- Application for Pesticide Registration (EPA Form 8570-1)
- One copy of final printed labeling

Please contact me at 919-256-9342 or by email at chitchcock@manainc.com if you have any questions regarding this submission or would like a copy of the annotated label showing the changes for your files.

Sincerely,

Christie Hitchcock
Registration Specialist

Enclosures



4/17

RESTRICTED USE PESTICIDE

Due to acute toxicity to humans, aquatic organisms, and avian species. For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

THIONEX[®] 50W

NOTIFICATION

INSECTICIDE

FEB 24 2009

Not for use or storage in or around residential sites-See DIRECTIONS FOR USE/GENERAL

INSTRUCTIONS for prohibited areas

For Agricultural or Commercial Use Only

(Wettable Powder in Water Soluble Bags)

ACTIVE INGREDIENT

% BY WT.

Endosulfan: (Hexachlorohexahydromethano-2,4,3-benzodioxathiepin-3-oxide)..... 50.0%

INERT INGREDIENTS:..... 50.0%

TOTAL 100.0%

EPA Reg. No. 66222-62

EPA Est. No. [REDACTED]

Manufactured for:

Makhteshim Agan of North America, Inc.
4515 Falls of Neuse Rd, Suite 300
Raleigh NC 27609

NET CONTENTS: _____ POUNDS

KEEP OUT OF REACH OF CHILDREN



DANGER-POISON



PELIGRO

SEE OTHER PANELS FOR ADDITIONAL PRECAUTIONARY INFORMATION.

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.)

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious or convulsing person.
IF IN EYES:	<ul style="list-style-type: none">• 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.
IF INHALED:	<ul style="list-style-type: none">• 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:	<ul style="list-style-type: none">• 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.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact PROSAR at 1-877-250-9291 for emergency medical treatment information.

NOTE TO PHYSICIAN: Endosulfan is a central nervous system stimulant absorbable by mouth, inhalation, or through contact with skin. It may cause convulsions. There is no specific antidote. Diazepam I.V. is the drug of choice. Barbituric acid derivatives such as Phenobarbital may be used additionally. A neuromuscular blocking agent may be used if convulsions persist. This type of drug may be used *only* if complete control of respiration can be maintained. Epinephrine derivatives are absolutely contraindicated. Probable mucosal damage may contraindicate the use of gastric lavage.

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

Fatal if swallowed. Corrosive. Causes irreversible eye damage. May be fatal if inhaled. Harmful if absorbed through skin. Do not get in eyes or on clothing. Do not breathe dust or spray mist. Avoid contact with skin. Do not contaminate food or feed. Keep out of reach of domestic animals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some of the materials that are chemical-resistant to this product are any waterproof material such as butyl rubber, neoprene rubber, nitrile rubber, polyethylene, and polyvinylchloride. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

All handlers except those using engineering controls must wear:

- A respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval prefix TC-14G), or a NIOSH approved respirator with an (OV) cartridge or canister with any R, P, or HE prefilter.

IN ADDITION:

Handlers supporting or using high pressure handwand equipment and flaggers must wear:

- Coveralls over long sleeved shirt and long pants
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves (except for flagging)
- Goggles or face shield
- Chemical-resistant headgear when exposed overhead
- Chemical-resistant apron when mixing and loading

All other handlers must wear:

- Long-sleeved shirt and long pants
- Socks and shoes
- Goggles or face shield
- Chemical-resistant gloves except for applicators using enclosed cabs or cockpits
- Chemical-resistant headgear when exposed overhead
- Chemical-resistant apron when mixing and loading, applying dips, cleaning up spills, or cleaning/repairing equipment
- A respirator of the type specified above for all handlers except for those using engineering controls

See engineering controls for additional requirements.

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

ENGINEERING CONTROL STATEMENT:

Water-soluble packets when used correctly qualify as a closed mixing/loading system under the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.240(d)(4)].

Mixers and loaders using water-soluble packets must:

- wear long-sleeved shirt, long pants, shoes, socks, chemical-resistant gloves, and chemical-resistant apron,
- wear protective eyewear (face shield or goggles, and
- be provided and have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown; chemical resistant footwear, and the type of respirator specified in the PPE.

Applicators using airblast equipment on all crops except ornamental trees and shrubs must use an enclosed cab that meets the definition of the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, such applicators must:

- wear the personal protective equipment required in the PPE section of this labeling,
- either wear the type of respirator specified in the PPE section of this labeling or use an enclosed cab that is declared in writing by the manufacturer or by the government agency to provide at least as much respiratory protection as the type of respirator specified in the PPE section of this labeling,
- be provided and must have immediately available for use in an emergency when they must exit the cab in the treated area; coveralls, chemical-resistant gloves, chemical-resistant footwear, chemical-resistant headgear if overhead exposure, and if using an enclosed cab that provides respiratory protection, a respirator of the type specified in the PPE section of this labeling,
- take off any PPE that was worn in the treated area before reentering the cab, and
- store all such PPE in a chemical resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

6/17

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

When handlers use enclosed cabs 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/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 product is extremely toxic to fish and aquatic invertebrates, and toxic to birds, and mammals. Do not apply directly to water, 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 water adjacent to treated areas. See **Requirements for Reducing Spray Drift** section of this label under "Directions for Use." Do not contaminate water when disposing of equipment wash waters or rinsate. This product must not be used in areas where impact on threatened endangered species is likely. Contact your State Fish and Game Agency before applying this product.

This pesticide is toxic to bees exposed to direct application. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning.

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.

CHEMIGATION STATEMENT: Do not apply this product through any type of irrigation equipment.

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 the restricted-entry interval (REI).

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 made of any waterproof material
- Shoes plus socks
- Protective eyewear

Notify workers of the application by warning them orally and by posting warning signs at the entrances to treated areas.

This product may be used in California by following the specific crop directions and the SUPPLEMENTAL LABEL found at the end of this label.

GENERAL INSTRUCTIONS

Not for use or storage in or around residential sites, including homes, non-agricultural outbuildings, non-commercial greenhouses, pleasure boats, recreational vehicles, preschools, day care centers, and applications to humans and pets.

Spraying Instructions

Do not use high pressure hand wand equipment except for bark treatment. If using high pressure hand wand equipment or Right-of-Way sprayers, reduce the maximum rate of application to 0.005 lb. active ingredient per gallon.

Apply the listed amount per acre when insects first appear and repeat as required, unless otherwise noted, to maintain effective control. Use in sufficient water for thorough coverage of listed crops, unless otherwise noted. Coverage of upper and lower leaf surfaces is essential for good control. For ground application, apply recommended amount of pesticide in a minimum of 10 gallons of water per acre on vegetable or row crops, unless otherwise noted. Observe use limitations. If insect control is required beyond the following use patterns, supplement the control program with other suitable pesticides.

When applying this material by aircraft, mix the recommended amount with sufficient water to provide a minimum of 5 gallons of finished spray per acre on vegetable and field crops unless otherwise noted, and a minimum of 20 gallons of finished spray per acre on fruit and nut trees and on vines. When applying 4 pounds or more of Thionex 50W, mix in a minimum of 10 gallons of water.

Mixing Instructions

Thionex 50W, a wettable powder formulation of the insecticide endosulfan, is individually packaged in one-pound units in a translucent water soluble bag contained within an outer package. Do not open the water soluble bags. Do not allow the inner bag to become wet before adding to spray or nurse tank. Do not handle the inner bag with wet hands or wet gloves. Rough handling may cause breakage. Do not store at temperatures below 32°F (0°C). Allow to warm above 50°F (10°C) before normal use. Cooler water temperatures increase the time needed for the inner bag to dissolve completely.

This product is intended for dilution with water for spray application. Do not use strainers finer than 50-mesh size. Determine the number of water soluble bag(s) to make up necessary spray suspension. Where dosages are expressed as fractions of pounds, prepare the tank mix to the lower of the nearest whole package. Use a minimum spray volume of 5 gallons of water per acre. Fill the spray or nurse tank $\frac{1}{2}$ full with water. Open the outer wrapper of this product and immediately dump required contents into spray tank. If possible, direct the fill water over the top of the packets. Allow the water soluble bag(s) to dissolve completely. Depending on the water temperature and agitation, the packets should be completely dissolved within approximately 3 to 5 minutes from the time they were added to the spray tank. Start hydraulic or mechanical agitation. Air agitation is not recommended. Mix thoroughly to fully disperse and suspend the wettable powder. Fill the spray tank with the required amount of water. Once the water soluble packets have dissolved, add other products following conventional mixing order practices. Maintain agitation during storage in nurse or supply tank or application.

Note: Each bag contains 1.0 pound of formulated product, which is equivalent to 0.5 pound active ingredient.

When an adjuvant is to be used with this product, Makhteshim Agan of North America, Inc. suggests the use of a Chemical Producers and Distributors Association certified adjuvant.

Requirements for Reducing Spray Drift

Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals. A 30 ft. vegetative buffer strip must be maintained between all areas treated with this product and rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries, and commercial fish ponds.

For ground boom applications, do not apply within 100 feet of rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries, and commercial fish ponds. Apply with nozzle height no more than 4 feet above the ground or crop canopy and when wind speed is 10 mph or less at the application site as measured by an anemometer. Use medium or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles.

For airblast applications, do not apply within 100 feet of rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries and commercial fish ponds. Direct spray above trees/vines and turn off outward pointing nozzles at row ends and outer rows. Apply only when wind speed is 3-10 mph at the application site as measured by an anemometer outside of the site on the upwind side.

For aerial applications, do not apply within 300 feet of rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries, and commercial fish ponds. The boom width must not exceed 75% of the wingspan or 90% of the rotary blade. Use upwind swath displacement and apply only when wind speed is 3 – 10 mph as measured by an anemometer. Use medium or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or the crop canopy.

The applicator also must use all other measures necessary to control drift.

Do not plant root crops other than carrots, potatoes, sweet potatoes, and sugar beets as follow-up crops.

8/17

PREHARVEST INTERVAL

Observe days interval between last application and harvest indicated by number in () following the crop name.

CROP	INSECTS CONTROLLED	RATE OF APPLICATION	METHOD OF APPLICATION
ALMONDS (58)	(Early infestation of): Peach twig borers	4 lbs. per acre	SPECIFIC DIRECTIONS: Apply during Popcorn, pink, or petal fall for control of early season infestation. Use in a minimum of 200 gals. of water per acre (dilute) or in 40 gals. per acre (concentrate). For areas less than 1 acre, use 1 lb per 100 gals. of water.
	<ul style="list-style-type: none"> Do not graze livestock on orchard crops or grasses in treated areas. Treated hulls may be fed to livestock and dairy animals. Do not make more than 1 application per season. Do not exceed a maximum of 2 lbs. of active ingredient (4 lbs. product) per acre per season. For airblast application, the use of a closed cab is required. Aerial application of this product is prohibited. Restricted-Entry Interval (REI) is 2 days. A 30-foot vegetative buffer strip must be maintained between all areas treated with this product and rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries and commercial fish ponds. This product is extremely toxic to fish and aquatic invertebrates and toxic to birds and mammals. Do not apply within 100 feet of rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries, and commercial fish ponds. Apply as a directed spray to foliage. If using airblast, turn off outward pointing nozzles at row ends and outer rows. Apply only when wind speed is 3-10 mph at the application site as measured by an anemometer outside the orchard on the upwind side. 		
APPLES (21) (Except California)	Aphids (including Apple Aphid, Rosy Apple Aphid, Woolly Apple Aphid), Apple Rust Mite, Green Fruitworm, Tarnished Plant Bug, Tentiform Leafminer, White Apple Leafhopper (first generation)	1 lb./ 100 gals. or a maximum of 5 lbs. per acre	Applications made at pink and/or petal fall provide best control of Tarnished Plant Bug and Green Fruitworm. For best control of first generation White Apple Leafhopper, apply when nymphs first appear on leaves. If necessary, prior to petal fall, use 1½ lbs. per 100 gals. to control Apple Aphid and Rosy Apple Aphid. For control of Tentiform Leafminer make first application as soon as moth flight begins. A second application should be made 10 days later.
	<ul style="list-style-type: none"> Do not apply by air Do not feed pomace from treated apples to livestock. Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications during the fruiting period. Do not make more than 3 applications per season. Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season. Exception for airblast application to apples: when application using enclosed-cab airblast equipment is not feasible in apple orchards, applicators are permitted to use open-cab airblast equipment PROVIDED they are wearing chemical resistant headgear AND maximum PPE clothing (i.e., baseline clothing plus organic vapor respirator, coveralls over long sleeved shirt and long pants, chemical resistant gloves, chemical resistant shoes plus socks; and goggles or face shield). Restricted-Entry Interval (REI) of 4 days. 		
APPLES (30) (California only)	Aphids (including Apple Aphid, Rosy Apple Aphid, Woolly Apple Aphid), Apple Rust Mite, White Apple Leafhopper (first generation)	1 lb./100 gals. or a maximum of 5 lbs. per acre	For best control of first generation White Apple Leafhopper, apply when nymphs first appear on leaves. If necessary, prior to petal fall, use 1½ lbs. per 100 gals. to control Apple Aphid and Rosy Apple Aphid.
	<ul style="list-style-type: none"> Do not apply by air Do not feed pomace from treated apples to livestock. Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications during the fruiting period. Do not make more than 3 applications per season. Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season. Exception for airblast application to apples: when application using enclosed-cab airblast equipment is not feasible in apple orchards, applicators are permitted to use open-cab airblast equipment PROVIDED they are wearing chemical resistant headgear AND maximum PPE clothing (i.e., baseline clothing plus organic vapor respirator, coveralls over long sleeved shirt and long pants, chemical resistant gloves, chemical resistant shoes plus socks; and goggles or face shield). Restricted-Entry Interval (REI) of 4 days. 		
APRICOTS (21), NECTARINES (21), PEACHES (21) (Except California)	Peachtree Borer, Lesser Peachtree Borer	1½ lbs./100 gals. or 4-5 lbs. per acre; Pacific Northwest: 1-1½ lbs./100 gals.; Southeastern: 3-5 lbs./100 gals.	Best control is obtained with a single application post-harvest after the leaves have dropped. Spray all bark areas from ground level to lower scaffold limbs.

9/17

	<ul style="list-style-type: none">Do not apply by air.Do not feed cull fruits to animals or allow livestock to graze in treated orchards.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 4 days		
APRICOTS (30), NECTARINES (30), PEACHES (30) (Except California)	Aphids (including Black Cherry Aphid, Black Peach Aphid, Green Peach Aphid, Rusty Plum Aphid), Catfacing Insects (Stink Bug type), Green Fruitworm, Peach Silver Mite, Peach Twig Borer	1 lb./100 gals. or a maximum of 4- 5 lbs. per acre	Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not apply by air.Do not feed cull fruits to animals or allow livestock to graze in treated orchards.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 4 days.		
APRICOTS (30), NECTARINES (30), PEACHES (30) (California only)	Aphids (including Black Cherry Aphid, Black Peach Aphid, Green Peach Aphid, Rusty Plum Aphid), Catfacing Insects (Stink Bug type), Peach Silver Mite, Peach Twig Borer	1 lb./100 gals. or a maximum of 4- 5 lbs. per acre	Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not apply by air.Do not feed cull fruits to animals or allow livestock to graze in treated orchards.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 4 days.		
BLUE-BERRIES (Except California)	Blueberry Bud Mite	3 lbs. per acre in 300 gals.	Apply immediately after harvest and repeat 6 to 8 weeks later.
	<ul style="list-style-type: none">Do not apply by airDo not apply after buds are well formed.Do not make more than 2 applications per season.Do not exceed a maximum of 1.5 lbs. active ingredient (i.e., 3 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 9 days.		
BROCCOLI (7), BRUSSELS SPROUTS (14), CABBAGE (7), CAULI-FLOWER (14), KOHLRABI (7) (Except California)	Cabbage Aphid, Cabbage Looper, Cross-striped Cabbageworm, Diamondback Moth Larvae, Flea Beetle, Harlequin Bug, Imported Cabbageworm, Leafhopper, Stink Bug	1½ -2 lbs. per acre	Make applications when insects appear or feeding is noticed.
	Armyworm, Cutworm, Whitefly	2 lbs. per acre	
	<ul style="list-style-type: none">Do not make more than 2 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 9 days.		
BROCCOLI (7), BRUSSELS SPROUTS (14), CABBAGE (7), CAULI-FLOWER (14), KOHLRABI (7) (California only)	Cabbage Aphid, Cabbage Looper, Cross-striped Cabbageworm, Diamondback Moth Larvae, Flea Beetle, Harlequin Bug, Imported Cabbageworm, Stink Bug	1½ -2 lbs. per acre	Make applications when insects appear or feeding is noticed.
	Armyworm, Cutworm, Whitefly	2 lbs. per acre	
	<ul style="list-style-type: none">Do not make more than 2 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 9 days.		

CELERY (4) (Except California)	Green Peach Aphid, Cabbage Looper, Leafhopper	1-2 lbs. per acre	Make application when insects appear or feeding is noticed.
	Armyworm, Flea Beetle, Whitefly	2 lbs. per acre	
	<ul style="list-style-type: none">Do not make more than one application per season.Do not exceed a maximum of 1 lb. active ingredient (i.e., 2 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days		
CELERY (4) (California only)	Green Peach Aphid, Cabbage Looper	1-2 lbs. per acre	Make application when insects appear or feeding is noticed.
	Flea Beetle, Whitefly	2 lbs. per acre	
	<ul style="list-style-type: none">Do not make more than one application per season.Do not exceed a maximum of 1 lb. active ingredient (i.e., 2 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days		
CELERY (7) (Except California)	Green Peach Aphid	1lb. per acre	Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not make more than 2 applications per season.Do not exceed a maximum of 1 lb. active ingredient (i.e., 2 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days		
CELERY (7) (California only)	Green Peach Aphid	1lb. per acre	Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not make more than 2 applications per season.Do not exceed a maximum of 1 lb. active ingredient (i.e., 2 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days		
CHERRIES (21) (California only)	Black Cherry Aphid, Plum Rust (Nursery) Mite	1 lb./ 100 gals. or 4-5 lbs. per acre	Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not apply by air.Do not feed cull fruits to animals or allow livestock to graze in treated orchards.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 4 days.		
CHERRIES (21) (Except California)	Peachtree Borer, Lesser Peachtree Borer	1½ lbs./100 gals. or 4-5 lbs. per acre; Pacific North-west: 1-1½ lbs./100 gals.	Best control is obtained with a single application post-harvest after the leaves have dropped. Spray all bark areas from ground to lower scaffold limbs.
	Black Cherry Aphid, Green Fruitworm, Plum Rust (Nursery) Mite	1 lb./ 100 gals. or 4-5 lbs. per acre	Make applications when insects appear or feeding is noticed.
	Pacific Northwest only: Eye-spotted Bud Moth Fruit Tree Leafroller		For bud moth control apply at "popcorn" stage. For leafroller control, apply during pre-pink stage of growth.
	Michigan Only: Mineola Moth	2 lbs./ 100 gals. not to exceed 5 lbs. of product per acre	Apply in the delayed dormant period.
	<ul style="list-style-type: none">Do not apply by air.Do not feed cull fruits to animals or allow livestock to graze in treated orchards.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 4 days.		
CITRUS (Non-bearing Trees and Nursery Stock) (Except California)	Citrus Aphid	1 lb./100 gals. Or a maximum of 5 lbs. per acre	Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not apply by air.Do not apply to bearing trees or trees that will bear fruit within twelve months.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 4 days.		
CITRUS (Non-bearing Trees and Nursery Stock) (California only)	Citrus Aphid	1 lb./100 gals. Or a maximum of 5 lbs. per acre	Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not apply by air.Do not apply to bearing trees or trees that will bear fruit within twelve months.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 4 days.		

COLLARDS (21) (Except California)	Aphid, Cabbage Looper, Diamondback Moth Larvae, Fall Armyworm, Flea Beetle, Harlequin Bug, Imported Cabbageworm, Leafhopper	1½ -2 lbs. per acre	Make application when insects appear or feeding is noticed.	
	Whitefly	2 lbs. per acre		
	<ul style="list-style-type: none">Do not make more than one application per season.Do not exceed a maximum of 1 lb. active ingredient (i.e., 2 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days.			
COLLARDS (21) (California only)	Aphid, Cabbage Looper, Diamondback Moth Larvae, Flea Beetle, Harlequin Bug, Imported Cabbageworm, Whitefly	1½ lbs. per acre	Make application when insects appear or feeding is noticed.	
	<ul style="list-style-type: none">Do not make more than one application per season.Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1½ lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days.			
	CUCUMBERS (2), MELONS (2), PUMPKINS (2), SUMMER and WINTER SQUASH , (2) (Except California)	Aphid, Cucumber Beetle, Melonworm, Pickleworm, Rindworm (on watermelons), Squash Beetle, Squash Bug, Squash Vine Borer, Striped Flea Beetle	1-2 lbs. per acre	Make applications when insects appear or feeding is noticed. For squash vine borer control, apply weekly to flower buds, stems, and vines beginning when moths first appear.
Cabbage Looper, Omnivorous Leafroller, Whitefly		2 lbs. per acre		
<ul style="list-style-type: none">Do not make more than 4 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 3 days.				
CUCUMBERS (2), MELONS (2), PUMPKINS (2), SUMMER and WINTER SQUASH (2) (California only)		Aphid, Cucumber Beetle, Melonworm, Pickleworm, Rindworm (on watermelons), Squash Beetle, Squash Bug, Squash Vine Borer, Striped Flea Beetle	1-2 lbs. per acre	Make applications when insects appear or feeding is noticed. For squash vine borer control, apply weekly to flower buds, stems, and vines beginning when moths first appear.
	Cabbage Looper, Omnivorous Leafroller, Whitefly	2 lbs. per acre		
	<ul style="list-style-type: none">Do not make more than 3 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 3 days.			
	EGGPLANT (1) (Except California)	Blister Beetle, Colorado Potato Beetle, Flea Beetle, Green Peach Aphid, Green Stink Bug	1-2 lbs. per acre	Make applications when insects appear or feeding is noticed.
Whitefly		2 lbs. per acre		
<ul style="list-style-type: none">Do not make more than 2 applications per season.Do not exceed a maximum of 2 lb. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 2 days.				
EGGPLANT (1) (California only)		Blister Beetle, Colorado Potato Beetle, Flea Beetle, Green Peach Aphid, Green Stink Bug, Whitefly	1 lb. per acre	Make application when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not make more than one application per season.Do not exceed a maximum of 0.5 lb. active ingredient (i.e., 1 lb. of product) per acre per season.Restricted-Entry Interval (REI) of 2 days.			
	FILBERTS (1) (Except California)	Filbert Aphid, Filbert Bud Mite, Filbert Leafroller	1 lb./100 gals. or 3-4 lbs. per acre	
		<ul style="list-style-type: none">Do not apply by air.Do not graze livestock on orchard crops or grasses in treated areas.Do not make more than 1 application per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 2 days.		
FILBERTS (1) (California only)		Filbert Aphid, Filbert Leafroller	1 lb./100 gals. or 3-4 lbs. per acre	Make application when insects appear or feeding is noticed.
		<ul style="list-style-type: none">Do not apply by air.Do not graze livestock on orchard crops or grasses in treated areas.Do not make more than 1 application per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 2 days.		

12/17

KALE (21) (Except California)	Cabbage Flea Beetle, Harlequin Bug, Imported Cabbageworm	1½ lbs. per acre	Make application when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not make more than one application per season.Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1½ lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days.		
KALE (21) (California only)	Cabbage Flea Beetle, Harlequin Bug, Imported Cabbageworm	1½ lbs. per acre	Make application when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not make more than one application per season.Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1½ lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days.		
LETTUCE (14) (Except California)	Cabbage Looper, Diamondback Moth Larvae, Green Peach Aphid, Imported Cabbageworm, Leafhopper	1½-2 lbs. per acre	Make applications when insects appear or feeding is noticed.
	Armyworm, Whitefly	2 lbs. per acre	
	<ul style="list-style-type: none">On Head Lettuce: Do not exceed 2 applications after thinning. Remove wrapper leaves at harvest.On Head and Leaf Lettuce: Do not make more than 2 applications per season.Do not feed crop refuse to livestock.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days.		
LETTUCE (14) (California only)	Cabbage Looper, Diamondback Moth Larvae, Green Peach Aphid, Imported Cabbageworm	1½-2 lbs. per acre	Make applications when insects appear or feeding is noticed.
	Whitefly	2 lbs. per acre	
	<ul style="list-style-type: none">On Head Lettuce: Do not exceed 2 applications after thinning. Remove wrapper leaves at harvest.On Head and Leaf Lettuce: Do not make more than 2 applications per season.Do not feed crop refuse to livestock.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days.		
MUSTARD GREENS (21) (Except California)	Aphid, Cabbage Looper, Diamondback Moth Larvae, Fall Armyworm, Flea Beetle, Harlequin Bug, Imported Cabbageworm, Leafhopper	1½-2 lbs. per acre	Make application when insects appear or feeding is noticed.
	Whitefly	2 lbs. per acre	
	<ul style="list-style-type: none">Do not make more than one application per season.Do not exceed a maximum of 1 lb. active ingredient (i.e., 2 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days.		
MUSTARD GREENS (21) (California only)	Aphid, Cabbage Looper, Diamondback Moth Larvae, Fall Armyworm, Flea Beetle, Harlequin Bug, Imported Cabbageworm, Whitefly	1½ lbs. per acre	Make application when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not make more than one application per season.Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1½ lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 4 days.		
PEARS (7) (Except California)	Green Fruitworm, Tarnished Plantbug	1 lb./100 gals. or 4-5 lbs. per acre	Make applications at white bud or petal fall when insects appear or feeding is noticed.
	Pear Psylla	5 lbs. per acre	Apply in a minimum of 10 gals. Of water for aerial application or in 300 gals. Of water for dilute application. Apply when adults are first observed or nymphs are small and repeat to maintain control.
	Pear Rust Mite, Conspense Stink Bug (foliar treatment)	1 lb./100 gals. or 4-5 lbs. per acre	Make applications when insects appear or feeding is noticed. Stink bugs must be wet by spray to obtain control.
	Conspense Stink Bug (soil treatment)	1 lb./100 gals; 200-400 gals. Per acre	Apply to orchard floor and around trees prior to bloom.
	Pear Leaf Blister Mite	½ - 1 lb. per 100 gals. not to exceed 5 lbs. of product per acre	Apply to trees as a post-harvest or dormant treatment.
	<ul style="list-style-type: none">Do not apply by air.Do not feed cull fruits to animals or allow livestock to graze in treated orchards.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required. Exception for airblast application to pears (OR, WA, and ID only): when application using enclosed-cab airblast equipment is not feasible in pear orchards, applicators are permitted to use open-cab airblast equipment PROVIDED they are wearing chemical resistant headgear AND maximum PPE clothing (i.e., baseline clothing plus organic vapor respirator, coveralls over long sleeved shirt and long pants, chemical resistant gloves, chemical resistant shoes plus socks; and goggles or face shield).Restricted-Entry Interval (REI) of 4 days.		

13/17

PEARS (7) (California only)	Pear Psylla	5 lbs. per acre	Apply in a minimum of 10 gals. of water for aerial application or in 300 gals. of water for dilute application. Apply when adults are first observed or nymphs are small and repeat to maintain control.
	Pear Rust Mite, Conspere Stink Bug (foliar treatment)	1 lb./100 gals. or 4-5 lbs. per acre	Make applications when insects appear or feeding is noticed. Stink bugs must be wet by spray to obtain control.
	Conspere Stink Bug (soil treatment)	1 lb./100 gals. ; 200-400 gals. per acre	Apply to orchard floor and around trees prior to bloom.
	Pear Leaf Blister Mite	½ - 1 lb. per 100 gals. not to exceed 5 lbs. of product per acre	Apply to trees as a post-harvest or dormant treatment.
	<ul style="list-style-type: none">Do not apply by air.Do not feed cull fruits to animals or allow livestock to graze in treated orchards.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 4 days.		
PEPPERS (4) (Except California)	Armyworm, Flea Beetle, Green Peach Aphid, Hornworm, Leafhopper, Pepper Maggot	1-2 lbs. per acre	Make applications when insects appear or feeding is noticed.
	Whitefly	2 lbs. per acre	
	<ul style="list-style-type: none">Do not make more than 2 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 2 days.		
PEPPERS (4) (California only)	Flea Beetle, Green Peach Aphid, Hornworm, Pepper Maggot	1-2 lbs. per acre	Make applications when insects appear or feeding is noticed.
	Whitefly	2 lbs. per acre	
	<ul style="list-style-type: none">Do not make more than 2 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 2 days.		
PLUMS (7), PRUNES (7) (Except California)	Fruittree Leafroller (Pacific Northwest Only)	1 lb./100 gals. or 4-5 lbs. per acre	Apply during pre-pink stage of growth when insects appear or feeding is noticed.
	Aphids (including Hop Aphid, Leafcurl Plum Aphid, Thistle Aphid), Plum Rust (Nursery) Mite		For control of aphids, apply when eggs hatch during pre-bloom or petal fall. Summer applications should be made before leaves curl.
	Peach Twig Borer		Make applications when insects appear or feeding is noticed.
	Lesser Peachtree Borer, Peachtree Borer	1½ lbs./100 gals. or 4-5 lbs. per acre; Pacific Northwest: 1-1½ lbs./100 gals. or 4-5 lbs. per acre	Best control is obtained with a single application post-harvest after the leaves have dropped. Spray all bark areas from ground level to lower scaffold limbs.
	<ul style="list-style-type: none">Do not apply by air.Do not feed cull fruits to animals or allow livestock to graze in treated orchards.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 4 days.		
PLUMS (7), PRUNES (7) (California only)	Aphids (including Hop Aphid, Leafcurl Plum Aphid, Thistle Aphid), Plum Rust (Nursery) Mite	1 lb./100 gals. or 4-5 lbs. per acre	For control of aphids, apply when eggs hatch during pre-bloom or petal fall. Summer applications should be made before leaves curl.
	Peach Twig Borer		Make applications when insects appear or feeding is noticed.
	Lesser Peachtree Borer, Peachtree Borer	1-1½ lbs./100 gals. or 4-5 lbs. per acre	Best control is obtained with a single application post-harvest after the leaves have dropped. Spray all bark areas from ground level to lower scaffold limbs.
	<ul style="list-style-type: none">Do not apply by air.Do not feed cull fruits to animals or allow livestock to graze in treated orchards.Do not make more than 2 applications per season.Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 4 days.		
POTATOES (1) (Except California)	Aphid, Armyworm, Colorado Potato Beetle, Green Stink Bug, Leafhopper, Plant Bug, Potato Flea Beetle, Potato Leafhopper, Potato Tuberworm, Threelined Potato Beetle	1-2 lbs. per acre	Make applications when insects appear or feeding is noticed.

14/17

	European Corn Borer, Potato Psyllid	1½-2 lbs. per acre	Make applications when insects appear or feeding is noticed.
	False Chinch Bug, Whitefly	2 lbs. per acre	
	<ul style="list-style-type: none">Do not make more than 4 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 2 days.		
POTATOES (1) (California only)	Aphid, Armyworm, Colorado Potato Beetle, Green Stink Bug, Leafhopper, Plant Bug, Potato Flea Beetle, Potato Leafhopper, Potato Tuberworm, Threelined Potato Beetle	1-2 lbs. per acre	Make applications when insects appear or feeding is noticed.
	European Corn Borer, Potato Psyllid	1½-2 lbs. per acre	
	False Chinch Bug, Whitefly	2 lbs. per acre	
		<ul style="list-style-type: none">Do not make more than 4 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 2 days.	
STRAW-BERRIES (4) (Except California)	Meadow Spittlebug, Strawberry Aphid, Tarnished Plant Bug, Whitefly	2 lbs. per acre	Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not apply by air.Do not reapply within 15 days or more than twice during a 35-day period when fruit is present.Do not make more than 2 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 5 days.		
	Cyclamen Mite	2 lbs. per acre in 400 gals. of water	Make applications when insects appear or feeding is noticed. Thoroughly wet the foliage, stem, and crown of the plant.
	<ul style="list-style-type: none">Do not apply by air.For multiple applications, do not apply at intervals less than 35-days when fruit is present.Do not make more than 2 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 5 days.		
STRAW-BERRIES (4) (California only)	Meadow Spittlebug, Strawberry Aphid, Tarnished Plant Bug, Whitefly	2 lbs. per acre	Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not apply by air.Do not reapply within 15 days or more than twice during a 35-day period when fruit is present.Do not make more than 2 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 5 days.		
	Cyclamen Mite	2 lbs. per acre in 400 gals. of water	Make applications when insects appear or feeding is noticed. Thoroughly wet the foliage, stem, and crown of the plant.
	<ul style="list-style-type: none">Do not apply by air.For multiple applications, do not apply at intervals less than 35-days when fruit is present.Do not make more than 2 applications per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.Restricted-Entry Interval (REI) of 5 days.		
WALNUTS (Except California)	Walnut Aphid	3-4 lbs. per acre.	Apply in a minimum of 100 gals. of water per acre. Make application when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not apply by air.Do not apply after husk split.Do not graze livestock on orchard crops or grasses in treated areas.Do not make more than 1 application per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 2 days.		
WALNUTS (California only)	Walnut Aphid	3-4 lbs. per acre.	Apply in a minimum of 100 gals. of water per acre. Make application when insects appear or feeding is noticed.
	<ul style="list-style-type: none">Do not apply by air.Do not apply after husk split.Do not graze livestock on orchard crops or grasses in treated areas.Do not make more than 1 application per season.Do not exceed a maximum of 2 lbs. active ingredient (i.e., 4 lbs. of product) per acre per season.For airblast applications the use of a closed cab is required.Restricted-Entry Interval (REI) of 2 days.		

15/17

**COMMERCIALLY GROWN ORNAMENTALS
GROWN OUTDOORS IN NURSERIES ONLY
Ornamental Trees And Shrubs**

CROP	INSECTS CONTROLLED	RATE OF APPLICATION	METHOD OF APPLICATION
DOGWOOD, LILAC , (Except California)	Dogwood Borer, Lilac Borer	1 lb. per 100 gals.	Apply in early June and repeat in 10 to 14 days. Drench all bark areas down to the ground level.
	<ul style="list-style-type: none"> Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season. Restricted-Entry Interval (REI) of 4 days. 		
DOUGLAS FIR (Grown for Ornamentals, Nursery Stock, or Christmas Trees) (Pacific Northwest Only)	Aphid, Cooley Spruce Gall Adelgid, Douglas Fir Needle Midge	1 lb. per 100 gals.	Make applications when insects appear or feeding is noticed. For control of gall adelgid, apply when white cottony tufts appear. For control of needle midge, apply in late April or early May just before buds open.
	<ul style="list-style-type: none"> Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season. Restricted-Entry Interval (REI) of 4 days. 		
PINES (Austrian, Jack, Red, Scotch, White) (Except California)	Zimmerman Pine Moth	1 lb. per 100 gals.	Apply in mid-April and again, if necessary, in late fall. Thoroughly wet bark and main stem, especially where branches join main stem.
	<ul style="list-style-type: none"> Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season. Restricted-Entry Interval (REI) of 4 days. 		
SHADE TREES (Except Birch), SHRUBS (Except California)	Aphid	1 lb. per 100 gals.	Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none"> Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season. Restricted-Entry Interval (REI) of 4 days. 		
SPRUCE (New England Area Only)	Spruce Gall Aphid	1 lb. per 100 gals.	Apply in late April or early May when aphids are present but before galls are formed.
	<ul style="list-style-type: none"> Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season. Restricted-Entry Interval (REI) of 4 days. 		
TAXUS (Except California)	Taxus Bud Mite	1 lb. per 100 gals.	Make 3 to 5 applications beginning in mid-May. Thoroughly spray foliage, twigs, and bark.
	Black Vine Weevil	2 lbs. per 100 gals.	Spray thoroughly and drench soil under the plants. Apply when the weevils first appear and repeat in 14 days.
	<ul style="list-style-type: none"> Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season. Restricted-Entry Interval (REI) of 4 days. 		
LEATHER-LEAF FERN (LEATHER HOLLY FERN) (Except California)	Leatherleaf Fern Borer	1 lb. per 100 gals.	Begin treatment when first larval feeding is observed in the mid-vein area at the base of the leaflets. Repeat at intervals of 2 to 3 weeks as necessary.
	<ul style="list-style-type: none"> Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 5 lbs. of product) per acre per season. Do not use in the greenhouse. Restricted-Entry Interval (REI) of 4 days. 		

STORAGE AND DISPOSAL

Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Do not store in or around the home.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, fold and roll back bags, clamp and close tightly. Do not put concentrate or dilute material into food or drink containers. In case of spill, avoid contact, isolate area, and keep out animals and unprotected persons. Confine spills. Contact INFOTRAC: (800) 535-5053.

To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter, or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

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

CONTAINER DISPOSAL:

Nonrefillable Container (flexible-bag-all weights): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid-fifty lbs. or less): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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.

16/17

Nonrefillable Container (rigid-greater than fifty lbs.): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a 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 or store rinsate for later use or disposal. Repeat this procedure two more times.

Refillable Container: Refillable container. Refill this container with endosulfan only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK, OR FIRE), CALL INFOTRAC AT 1-800-535-5053.

LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES and LIMITATIONS OF LIABILITY.**

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.

17/17

CALIFORNIA SUPPLEMENTAL LABEL

PROCEDURES FOR REDUCING RISK OF CONTAMINATION OF AQUATIC ECOSYSTEMS

FOR CROP USES LISTED ON THE PRODUCT LABEL

Endosulfan may be a source of contamination in aquatic ecosystems as a result of run-off from agricultural land due to discharge of irrigation water or during periods of heavy rainfall.

To minimize the chance of aquatic impact, the following conditions must be met to allow endosulfan applications:

DIRECTIONS FOR USE (General)

IN ADDITION TO SPECIFIC INSTRUCTIONS UNDER DIRECTIONS FOR USE ON THE PRINCIPAL LABELS, THE FOLLOWING CONDITIONS MUST ALSO BE FOLLOWED FOR USE IN CALIFORNIA:

1. Do not apply this product to fields during irrigation or irrigate for 72 hours following an application.
2. Do not apply this product through any type of irrigation system.
3. Do not apply more than 1½ lbs. a.i./acre/application or more than 3 lbs. a.i./acre/season. (Orchard crops and strawberries exempted on rate/acre/application restriction.)
4. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.
5. Do not apply by ground or air within a distance of 300 feet to natural bodies of water including lakes, ponds, streams, and estuaries.

FOR DRIFT CONTROL

1. All application equipment should be properly maintained and calibrated using appropriate carriers.
2. Do not make aerial or ground applications during temperature inversions.
3. 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 10 mph. Do not discharge at a height of more than 10 feet above the crop or target.
4. For aerial applications, a positive shutoff system shall be in place to control flow of liquid to spray nozzles as follows: Each individual nozzle shall be equipped with a check valve and the flow controlled by a suckback device or a boom pressure release device or each nozzle shall be equipped with a positive action valve.
5. For aerial applications, the spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip or rotor vortices. The working boom length must not exceed 75% of wing span or rotor diameter.
6. Aircraft boom pressure shall not exceed 40 pounds per square inch.
7. Aircraft nozzles shall be equipped with orifices directed backward parallel to the horizontal axis of the aircraft in flight.
8. Aircraft nozzles shall not be equipped with any device or mechanism which would cause a sheet, cone, fan, or similar type dispersion of the discharged material except as otherwise provided.
9. Fixed wing aircraft and helicopters operating in excess of 60 mph shall be equipped with jet nozzles having an orifice not less than 1/16 inch in diameter (D-4 or larger).
10. Helicopters operating at 60 mph or less shall be equipped with nozzles having an orifice not less than 1/16 inch in diameter. A number 46 or equivalent whirlplate may be used.
11. For ground applications, equipment other than handguns shall be equipped with nozzles having an orifice not less than 1/16 inch in diameter or larger. Boom nozzles shall be operated at a boom pressure not to exceed 30 pounds per square inch.

READ CONTAINER LABEL FOR COMPLETE USE INSTRUCTIONS

ACCEPTABLE SITES FOR ENDOSULFAN APPLICATION

1. FIELDS, WITH NO DRAINS, HAVING CONTAINMENT THROUGH BERMS (able to hold irrigation water and normal rainwater), LEVEES AND NON-DRAINING CIRCULATION SYSTEMS.
2. FIELDS WITH DRAINS, BUT DRAINAGE FLOWS TO SUMP, FARM POND, EVAPORATION POND, OR RECIRCULATION SYSTEM WITHOUT DRAINAGE (uncontrollable overflow acceptable, e.g., 10 or 100 year flood). Only grower maintained recirculation systems without drainage are acceptable.
3. FIELDS WITH SURFACE DRAINS THAT NATURALLY FLOW ONTO PASTURELAND OR FALLOW FIELDS THAT HAVE NO CHanneled DRAINAGE AND ARE AT LEAST 300 FEET LONG.

UNACCEPTABLE SITES FOR ENDOSULFAN APPLICATION

1. FIELDS DRAINING DIRECTLY INTO SURFACE WATERS SUCH AS STREAMS, RIVERS, LAKES, PONDS, MARSHES, BAYS, ESTUARIES, OR THE OCEAN.
2. FIELDS DRAINING INTO SURFACE DRAINAGE DITCHES OR CANALS THAT FLOW DIRECTLY INTO SURFACE WATERS SUCH AS STREAMS, RIVERS, LAKES, PONDS, MARSHES, BAYS, ESTUARIES, OR THE OCEAN.
3. ANY AND ALL FIELDS WITH SURFACE DRAINAGE PATTERNS IN THE MOSS LANDING DRAINAGE SYSTEM HAVING MAIN ARTERIES THAT DRAIN INTO THE ELKHORN SLOUGH (northern portion of Monterey County).
4. ANY AND ALL FIELDS WITH DRAINAGE PATTERNS IN THE SAN DIEGO CREEK DRAINAGE SYSTEM HAVING MAIN ARTERIES THAT DRAIN INTO NEWPORT BAY.

ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE EPA REGISTERED LABEL ARE TO BE FOLLOWED.

THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF PESTICIDE APPLICATION.

Thionex 50W (66222-62)(EPA app 10-31-07)(notif to EPA 08-05-08)