

66222-63

7/25/2011

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Ms. Anne Stout
Makhteshim-Agan of North America, Inc
4515 Falls of Neuse Road, Suite 300
Raleigh, NC 27609

JUL 25 2011

Dear Ms. Stout:

Subject: Amendment: Correct pomace livestock feeding limitation for the crop apples
Thionex 3EC
EPA Reg. No. 66222-63
Your submission dated June 29, 2011

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) section 3(c)(7)(a), is acceptable and a stamped copy of the basic label, and the supplemental label (which will enable use on apples without the pomace feeding limitation of product bearing the previously approved basic label) are enclosed for your records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

Sincerely,

Mark Suarez
Product Manager 13
Insecticide Branch
Registration Division (7505P)

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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 applicators certification.

THIONEX[®] 3EC
INSECTICIDE

For Agricultural or Commercial Use Only

Not for use or storage in or around residential sites-see DIRECTIONS FOR USE/GENERAL INSTRUCTIONS for prohibited areas.

ACTIVE INGREDIENT	% BY WT.
Endosulfan: (Hexachlorohexahydromethano-2,4,3-benzodioxathiepin-3-oxide)	33.7%
INERT INGREDIENTS:*	66.3%
	TOTAL 100.0%

*Contains Xylene Range Aromatic Solvent.
Contains 3 pounds of endosulfan per gallon.

EPA Reg. No. 66222-63

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

NET CONTENTS: 2.5 GALLONS

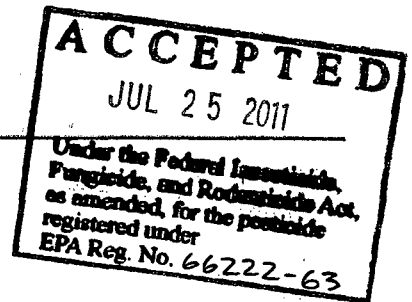
KEEP OUT OF REACH OF CHILDREN



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

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. This formula contains petroleum hydrocarbons (xylene range aromatic solvent). Care should be taken to prevent aspiration because of the possibility of chemical pneumonia or pulmonary edema due to the organic solvent in the formulation. Probable mucosal damage may contraindicate the use of gastric lavage.

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

Fatal if swallowed or absorbed through skin. Corrosive. Causes irreversible eye damage. Causes skin burns. May be fatal if inhaled. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. Do not contaminate food or feed. Keep out of reach of domestic animals. Food utensils such as measuring cups must not be used for food purposes after use in measuring pesticides.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some of the materials that are chemical resistant to this product are barrier laminate or Viton. If you want more options, follow the instructions for category G 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:

All mixers and loaders who are not using engineering controls (see engineering control requirements below) 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 mixers, loaders, applicators, and 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 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.

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 STATEMENT

Mixers and loaders supporting aerial applications at the rate of more than 1.5 lbs/a.i. per acre must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4)] for dermal and inhalation protection, and must:

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

Applicators using airblast equipment must use an enclosed cab that meets the definition of the Worker Protection Standard 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 a 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.

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

When handlers use closed systems and 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, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. See spray drift management instructions 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. Apply this product only as specified on this label.

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.

PHYSICAL AND CHEMICAL HAZARDS

COMBUSTIBLE. Do not use, pour, spill, or store near heat or open flame.

**DIRECTIONS FOR USE
RESTRICTED USE PESTICIDE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and 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) found in the specific directions for each site or 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
- Chemical resistant gloves made of any waterproof material
- Protective eyewear
- Shoes plus socks

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

NOTE TO ALL USERS

(Note to label editor/typesetter; ensure this font is the same size as the Keep Out of Reach of Children. This note to the label editor will not appear on commercial product labeling.)

It is unlawful to use this same product from containers bearing previous (older) versions of labeling after July 31, 2012 on the following crops which may have appeared on those earlier labels.

Note: These uses do not appear on this new label and therefore product from this container cannot be used on crops in this first listing except for currently approved Special Local Need registrations (FIFRA Section 24(c)).

Almonds; Apricots; Broccoli; Brussels sprouts; Carrots; Cauliflower; Celery (except Arizona); Cherries (tart); Citrus (nonbearing and nursery stock); Collard greens; Dry beans; Dry peas; Eggplant; Filbert; Kale; Kohlrabi; Macadamia; Mustard Greens; Nectarines (California only); Plum; Prune; Poplars grown for pulp and timber; Strawberries (annual); Sweet potatoes; Tomatoes (greenhouse-grown only); Turnips; Walnuts; Ornamental Trees, Shrubs, and Herbaceous Plants-includes boxelder; dogwood; lilac; Douglas fir (grown for ornamentals, nursery stock, or Christmas trees; Pacific northwest only); elms; leatherleaf fern; pines (Austrian, jack, red, scotch, white); shade trees (except birch); shrubs; spruce (New England area only); taxus; orchids; hybrid poplars; Christmas trees.

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It is unlawful to use this product after July 31, 2012 on the following crops: Note: These uses may appear on this new label and product from this container can be used on crops in this listing and the listings that follow until the specified end-of-use date for each listing.	Cabbage; Celery (Arizona only); Cherries (sweet); Cotton; Cucumbers; Lettuce; Melons (summer-includes cantaloupe, honeydew, watermelon); Nectarines (except California); Peaches; Squash (summer); Tobacco.
It is unlawful to use this product after July 31, 2013 on the following crops:	Pears.
It is unlawful to use this product in the state of Florida after December 31, 2014 on the following crops:	Apples, Blueberries, Peppers, Potatoes, Pumpkins, Sweet corn, Tomatoes, Winter Squash.
It is unlawful to use this product after July 31, 2015 on the following crops:	Apples, Blueberries, Peppers, Potatoes, Pumpkins, Sweet corn, Tomatoes, Winter Squash.
It is unlawful to use this product after July 31, 2016 on the following crops:	Pineapples; Strawberries (perennial and biennial); Vegetable crops grown for seed (alfalfa, broccoli, Brussels sprouts, cabbage, cauliflower, Chinese cabbage, collard greens, kale, kohlrabi, mustard greens, radish, rutabaga, turnip).

It is unlawful to use this product on any crop or use site after July 31, 2016.

INSTRUCTIONS

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

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

Do not use in undiluted form.

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.

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 listed 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.

Mixing Instructions

When applying this material by aircraft, mix the listed amount with sufficient water to provide a minimum of 1 gallon of finished spray per acre on vegetable crops unless otherwise noted, and a minimum of 20 gallons of finished spray per acre on fruit crops. Where more than 2 quarts of this material are listed, mix with sufficient water to provide a minimum of finished spray equal to twice the amount of Thionex 3EC Insecticide used.

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

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, nontarget 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 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 site.

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.

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CHEMIGATION STATEMENT

Do not apply this product through any type of irrigation system.

PREHARVEST INTERVAL

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

CROP	INSECTS CONTROLLED	RATE OF APPLICATION	METHOD OF APPLICATION
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)	$\frac{1}{2}$ qt./100 gals. or a maximum of 2 $\frac{2}{3}$ qts. per acre	Apply using airblast application equipment only. 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 $\frac{1}{2}$ qt. per 100 gals. to control Apple Aphid and Rosy Apple Aphid. For control of Tentiform Leafminer, make first application as soon as moth flights begin. A second application should be made 10 days later.
			<ul style="list-style-type: none"> • 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 year. • Do not make aerial applications. • Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 2 $\frac{2}{3}$ qts. of product) per acre per year. • 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) is 7 days.
APPLES (30) (California only)	Aphids (including Apple Aphid, Rosy Apple Aphid, Woolly Apple Aphid), Apple Rust Mite, White Apple Leafhopper (first generation)	$\frac{1}{2}$ qt. per 100 gals. or a maximum of 2 $\frac{2}{3}$ qts. per acre	Apply using airblast application equipment only. For best control of first generation White Apple Leafhopper, apply when nymphs first appear on leaves. If necessary, prior to petal fall, use $\frac{1}{2}$ qt. per 100 gals. to control Apple Aphid and Rosy Apple Aphid.
			<ul style="list-style-type: none"> • Do not feed cull fruits to animals or allow livestock to graze in treated orchards. • Do not make more than 2 applications per year. • Do not make aerial applications. • Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 2 $\frac{2}{3}$ qts. of product) per acre per year. • 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) is 7 days.
NECTARINES, PEACHES (21) (Except California)	Peachtree Borer, Lesser Peachtree Borer	1 qt./ 100 gals. or 2 $\frac{2}{3}$ – 3 $\frac{1}{3}$ qts. per acre	Apply using airblast application equipment only. Pacific Northwest: Use 2/3-1 qt. per 100 gals.; Southeastern States: Use 2 to 3 $\frac{1}{3}$ qts. per 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.
			<ul style="list-style-type: none"> • Do not feed cull fruits to animals or allow livestock to graze in treated orchards. • Do not make more than 2 applications per year. • Do not make aerial applications. • Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 3 $\frac{1}{3}$ qts. of product) per acre per year. • For airblast applications the use of a closed cab is required. • Restricted-Entry Interval (REI) is 7 days.
NECTARINES, 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	2/3 qt./ 100 gals or a maximum of 3 $\frac{1}{3}$ qts. per acre	Apply using airblast application equipment only. Make applications when insects appear or feeding is noticed.
			<ul style="list-style-type: none"> • Do not feed cull fruits to animals nor allow livestock to graze in treated orchards. • Do not make more than 2 applications per year. • Do not make aerial applications. • Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 3 $\frac{1}{3}$ qts. of product) per acre per year. • For airblast applications the use of a closed cab is required. • Restricted-Entry Interval (REI) is 7 days.
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	2/3 qt./ 100 gals. or a maximum of 3 $\frac{1}{3}$ qts. per acre	Apply using airblast application equipment only. Make applications when insects appear or feeding is noticed.
			<ul style="list-style-type: none"> • Do not feed cull fruits to animals nor allow livestock to graze in treated orchards. • Do not make more than 2 applications per year. • Do not make aerial applications. • Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 3 $\frac{1}{3}$ qts. of product) per acre per year. • For airblast applications the use of a closed cab is required. • Restricted-Entry Interval (REI) is 7 days.

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	<ul style="list-style-type: none"> Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not make aerial applications. Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 3 1/3 qts. of product) per acre per year. For airblast applications the use of a closed cab is required. Restricted-Entry Interval (REI) is 7 days. 		
BLUEBERRIES (Except California)	Blueberry Bud Mite	2 qts. per acre in 300 gals.	Apply using airblast or ground boom application equipment only. Apply immediately after harvest and repeat 6 to 8 weeks later.
	<ul style="list-style-type: none"> Do not apply after buds are well formed. Do not make more than 2 applications per year. Do not make aerial applications. Do not exceed a maximum of 1.5 lbs. active ingredient (i.e., 2 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 6 days for highbush blueberries and 10 days for lowbush blueberries. 		
CABBAGE (17)(Except California)	Cabbage Aphid, Cabbage Looper, Cross-striped Cabbageworm, Diamondback Moth Larvae, Flea Beetle, Harlequin Bug, Imported Cabbageworm, Leafhoppers, Stink Bugs	1 – 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	Armyworm, Cutworm, Whitefly	1 1/3 qts. 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 year. Do not make aerial applications. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 4 days. 			
CABBAGE (17) (California only)	Cabbage Aphid, Cabbage Looper, Cross-striped Cabbageworm, Diamondback Moth Larvae, Flea Beetles, Harlequin Bug, Imported Cabbageworm, Stink Bugs	1 – 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	Armyworms, Cutworms, Whitefly	1 1/3 qts. per acre	
<ul style="list-style-type: none"> Do not make more than 2 applications per year. Do not make aerial applications. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 4 days. 			
CELERY (11) Arizona Only	Green Peach Aphid, Cabbage Looper, Leafhoppers	2/3 – 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make application when insects appear or feeding is noticed.
	Armyworm, Flea Beetle, Whitefly	1 1/3 qts. per acre	
<ul style="list-style-type: none"> Do not make more than one application per year. Do not make aerial applications. Do not exceed a maximum of 1 lb. active ingredient (i.e., 1 1/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 4 days. 			
CHERRIES, SWEET (21) (Except California)	Peachtree Borer, Lesser Peachtree Borer	1 qt./100 gals. or 2 2/3 – 3 1/3 qts. per acre; Pacific Northwest: 2/3 - 1 qt./100 gals.	Apply using airblast application equipment only. 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.
	Black Cherry Aphid, Green Fruitworm, Plum Rust (Nursery) Mite	2/3 qt. per 100 gals. or 2 2/3 – 3 1/3 qts. per acre	Apply using airblast application equipment only. Make applications when insects appear or feeding is noticed.
	Pacific Northwest only: Eye-Spotted Bud Moth Fruitree Leafroller		Apply using airblast application equipment only. For bud moth control, apply at "popcorn" stage. For leafroller control, apply during pre-pink stage of growth.
	Michigan Only: Mineola Moth	1 1/3 qts. per 100 gals. not to exceed 3.33 qts. (2.5 lb a.i.) per acre	Apply using airblast application equipment only. Apply in the delayed dormant period.
<ul style="list-style-type: none"> Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not make aerial applications. Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 3 1/3 qts. of product) per acre per year. For airblast applications the use of a closed cab is required. Restricted-Entry Interval (REI) is 7 days. 			
CHERRIES, SWEET (21)	Black Cherry Aphid, Plum Rust (Nursery) Mite	2/3 qt. per 100 gals. or 2 2/3 – 3 1/3 qts. per acre	Apply using airblast application equipment only. Make applications when insects appear or feeding is noticed.

(California only)	<ul style="list-style-type: none"> Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not make aerial applications. Do not exceed a maximum of 2.5 lbs. active ingredient (i.e., 3 1/3 qts. of product) per acre per year. For airblast applications the use of a closed cab is required. Restricted-Entry Interval (REI) is 7 days. 												
COTTON (For Use in AZ, NM, OK, and TX only)	<table border="1"> <tr> <td data-bbox="293 275 667 302">Aphids</td> <td data-bbox="667 275 899 302">1/2 - 1 qt. per acre</td> </tr> <tr> <td data-bbox="293 302 667 329">Boll Weevil</td> <td data-bbox="667 302 899 329">2/3 - 2 qts. per acre</td> </tr> <tr> <td data-bbox="293 329 667 453">Bollworm, Cabbage Looper, Cotton Leafperforator, Cotton Leafworm, Fleahopper, Lygus Bugs, Stink Bugs, Tobacco Budworm</td> <td data-bbox="667 329 899 453">1 1/3 - 2 qts. per acre</td> </tr> <tr> <td data-bbox="293 453 667 480">Thrips</td> <td data-bbox="667 453 899 480">2 qts. per acre</td> </tr> <tr> <td data-bbox="293 480 667 506">Whitefly</td> <td data-bbox="667 480 899 506">1 1/3 qts. per acre</td> </tr> </table>	Aphids	1/2 - 1 qt. per acre	Boll Weevil	2/3 - 2 qts. per acre	Bollworm, Cabbage Looper, Cotton Leafperforator, Cotton Leafworm, Fleahopper, Lygus Bugs, Stink Bugs, Tobacco Budworm	1 1/3 - 2 qts. per acre	Thrips	2 qts. per acre	Whitefly	1 1/3 qts. per acre		Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed. For control of aphids, thorough coverage is important. The higher rate should be used under heavy pest pressure.
Aphids	1/2 - 1 qt. per acre												
Boll Weevil	2/3 - 2 qts. per acre												
Bollworm, Cabbage Looper, Cotton Leafperforator, Cotton Leafworm, Fleahopper, Lygus Bugs, Stink Bugs, Tobacco Budworm	1 1/3 - 2 qts. per acre												
Thrips	2 qts. per acre												
Whitefly	1 1/3 qts. per acre												
	<ul style="list-style-type: none"> Do not make more than 2 applications per year. Do not make aerial applications. Do not apply after bolls open. Do not graze meat or dairy animals in treated fields. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 10 days. Only mechanical harvesting is permitted. Hand thinning/pruning is prohibited. 												
COTTON (CA only)	<table border="1"> <tr> <td data-bbox="293 695 667 722">Aphids</td> <td data-bbox="667 695 899 722">1/2 - 1 qt. per acre</td> </tr> <tr> <td data-bbox="293 722 667 814">Bollworm, Cabbage Looper, Cotton Leafperforator, Fleahoppers, Lygus Bugs, Stink Bugs</td> <td data-bbox="667 722 899 814">1 1/3 - 2 qts. per acre</td> </tr> <tr> <td data-bbox="293 814 667 842">Thrips</td> <td data-bbox="667 814 899 842">2 qts. per acre</td> </tr> <tr> <td data-bbox="293 842 667 863">Whitefly</td> <td data-bbox="667 842 899 863">1 1/2 qts. per acre</td> </tr> </table>	Aphids	1/2 - 1 qt. per acre	Bollworm, Cabbage Looper, Cotton Leafperforator, Fleahoppers, Lygus Bugs, Stink Bugs	1 1/3 - 2 qts. per acre	Thrips	2 qts. per acre	Whitefly	1 1/2 qts. per acre		Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed. For control of aphids, thorough coverage is important. The higher rate should be used under heavy pest pressure.		
Aphids	1/2 - 1 qt. per acre												
Bollworm, Cabbage Looper, Cotton Leafperforator, Fleahoppers, Lygus Bugs, Stink Bugs	1 1/3 - 2 qts. per acre												
Thrips	2 qts. per acre												
Whitefly	1 1/2 qts. per acre												
	<ul style="list-style-type: none"> Do not make more than 2 applications per year. Do not make aerial applications. Do not apply after bolls open. Do not graze meat or dairy animals in treated fields. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 10 days. Only mechanical harvesting is permitted. Hand thinning/pruning is prohibited. 												
CUCUMBERS (11), MELONS (4), PUMPKINS (11), SUMMER SQUASH (4), WINTER SQUASH (11) (Except California)	Aphids, Cucumber Beetle, Melonworm, Pickleworm, Rindworm (on watermelons), Squash Beetle, Squash Bug, Squash Vine Borer, Striped Flea Beetle	2/3 - 1 1/3 qts. per acre	Apply using ground boom application equipment only on cucumbers, pumpkins, summer squash, and winter squash. Apply using ground boom or aerial application equipment on melons. 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	1 1/3 qts. per acre											
	<ul style="list-style-type: none"> Do not make more than 4 applications per year. Do not make aerial applications on cucumbers, pumpkins, winter squash, and summer squash. Aerial applications are allowed on melons. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 4 days for cucumbers, melons, and summer squash; 7 days for pumpkins and winter squash. 												
CUCUMBERS (11), MELONS (4), PUMPKINS (11), SUMMER SQUASH (4), WINTER SQUASH (11) (California only)	Aphids, Cucumber Beetle, Melonworm, Pickleworm, Rindworm (on watermelons), Squash Beetle, Squash Bug, Squash Vine Borer, Striped Flea Beetle	2/3 - 1 1/3 qts. per acre	Apply using ground boom application equipment only on cucumbers, pumpkins, summer squash, and winter squash. Apply using ground boom or aerial application equipment on melons. 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	1 1/3 qts. per acre											
	<ul style="list-style-type: none"> Do not make more than 3 applications per year. Do not make aerial applications on cucumbers, pumpkins, winter squash, and summer squash. Aerial applications are allowed on melons. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 4 days for cucumbers, melons, and summer squash; 7 days for pumpkins and winter squash. 												
LETTUCE (14) (Except California)	Cabbage Looper, Diamondback Moth Larvae, Green Peach Aphid, Imported Cabbageworm, Leafhoppers	1 - 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.										
	Armyworms, Whitefly	1 1/3 qts. per acre											

	<ul style="list-style-type: none"> On Head Lettuce: Do not exceed 2 applications after thinning. Remove wrapper leaves at harvest. On Leaf Lettuce and Head Lettuce: Do not make more than 2 applications per year. Do not feed crop refuse to livestock. Do not make aerial applications. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 4 days. 		
LETTUCE (14) (California only)	Cabbage Looper, Diamondback Moth Larvae, Green Peach Aphid, Imported Cabbageworm, Leafhoppers	1 - 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	Whitefly	1 1/3 qts. per acre	
	<ul style="list-style-type: none"> On Head Lettuce: Do not exceed 2 applications after thinning. Remove wrapper leaves at harvest. On Leaf Lettuce and Head Lettuce: Do not make more than 2 applications per year. Do not feed crop refuse to livestock. Do not make aerial applications. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 4 days. 		
PEARS (7) (Except California)	Green Fruitworm, Tarnished Plantbug	1/2 qt. per 100 gals. or 2 2/3 qts. per acre	Apply using airblast application equipment only. Make applications at white bud or petal fall when insects appear or feeding is noticed.
	Pear Psylla	2 2/3 qts. per acre	Apply using airblast application equipment only. Apply in a minimum of 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, Consperse Stink Bug (foliar treatment)	1/2 qt. per 100 gals. or 2 2/3 qts. per acre	Apply using airblast application equipment only. Make applications when insects appear or feeding is noticed. Stink bugs must be wet by spray to obtain control.
	Pear Leaf Blister Mite	1/3 - 1/2 qt. per 100 gals. not to exceed 2 2/3 qts. (2.0 lbs. a.i.) per acre	Apply using airblast application equipment only. Apply to trees as a post-harvest or dormant treatment.
	<ul style="list-style-type: none"> Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not make aerial applications. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. 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) is 7 days. 		
PEARS (7) (California only)	Pear Psylla	2 2/3 qts. per acre	Apply using airblast application equipment only. Apply in a minimum of 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, Consperse Stink Bug (foliar treatment)	1/2 qt. per 100 gals. or 2 2/3 qts. per acre	Apply using airblast application equipment only. Make applications when insects appear or feeding is noticed. Stink bugs must be wet by spray to obtain control.
	Consperse Stink Bug (soil treatment)	1/2 qt. per 100 gals.; 200 - 400 gals. per acre not to exceed 2 2/3 qts. per acre	Apply using airblast application equipment only. Apply to orchard floor and around trees prior to bloom.
	Pear Leaf Blister Mite	1/3 - 1/2 qt. per 100 gals. not to exceed 2 2/3 qts. (2.0 lbs. a.i.) per acre	Apply using airblast application equipment only. Apply to trees as a post-harvest or dormant treatment.
	<ul style="list-style-type: none"> Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not make aerial applications. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. For airblast applications the use of a closed cab is required. Restricted-Entry Interval (REI) is 7 days. 		
PEPPERS (4) (Except California)	Armyworms, Flea Beetles, Green Peach Aphid, Hornworm, Leafhoppers, Pepper Maggot	2/3 - 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	Whitefly	1 1/3 qts. per acre	
	<ul style="list-style-type: none"> Do not make more than 2 applications per year. Do not make aerial applications. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 4 days. 		

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PEPPERS (4) (California only)	Flea Beetles, Green Peach Aphid, Hornworms, Pepper Maggot	2/3 – 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	Whitefly	1 1/3 qts. per acre	
<ul style="list-style-type: none"> Do not make more than 2 applications per year. Do not make aerial applications. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 4 days. 			
PINEAPPLE (For Fresh Market Only) (10) (Except California)	Pineapple Fruit Mite	1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed. Apply at intervals of 7 to 10 days if necessary, particularly during the 40-day period of blooming.
	<ul style="list-style-type: none"> Do not feed forage or pineapple by-products to livestock. Do not make more than 2 applications per year. Do not make aerial or airblast applications. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 10 days. 		
PINEAPPLE (For Fresh Market Only) (10) (California only)	Pineapple Fruit Mite	1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed. Apply at intervals of 7 to 10 days if necessary, particularly during the 40-day period of blooming.
	<ul style="list-style-type: none"> Do not feed treated forage or pineapple by-products to livestock. Do not make more than 2 applications per year. Do not make aerial or airblast applications. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 10 days. 		
POTATOES (7) (Except California)	Aphids, Armyworms, Colorado Potato Beetle, Green Stink Bug, Leaffooted Bug, Plant Bugs, Potato Flea Beetle, Potato Leafhopper, Potato Tuberworm, Threelined Potato Beetle	2/3 – 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	European Corn Borer, Potato Psyllid	1 – 1 1/3 qts. per acre	
	False Chinch Bug, Whitefly	1 1/3 qts. per acre	
	<ul style="list-style-type: none"> Do not make more than 4 applications per year. Do not make aerial applications nor apply through irrigation systems. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 7 days. 		
POTATOES (7) (California only)	Aphids, Armyworms, Colorado Potato Beetle, Green Stink Bug, Leaffooted Bug, Plant Bugs, Potato Flea Beetle, Potato Leafhopper, Potato Tuberworm, Threelined Potato Beetle	2/3 – 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	European Corn Borer, Potato Psyllid	1 – 1 1/3 qts. per acre	
	False Chinch Bug, Whitefly	1 1/3 qts. per acre	
	<ul style="list-style-type: none"> Do not make more than 4 applications per year. Do not make aerial applications nor apply through irrigation systems. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 7 days. 		
STRAW- BERRIES (Perennial/ Biennial only) (7) (Except California)	Meadow Spittlebug, Strawberry Aphid, Tarnished Plant Bug, Whitefly	1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	<ul style="list-style-type: none"> 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 year. Do not make aerial applications. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 2 days. 		
	Cyclamen Mite	1 1/3 qts. per acre in 400 gals. of water	
<ul style="list-style-type: none"> For multiple applications, do not apply at intervals less than 35 days when fruit is present. Do not make more than 2 applications per year. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 7 days. 			
STRAW- BERRIES	Meadow Spittlebug, Strawberry Aphid, Tarnished Plant Bug, Whitefly	1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.

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(Perennial/ Biennial only) (7)(California only)	<ul style="list-style-type: none"> 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 year. Do not make aerial applications. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 7 days. 		
	Cyclamen Mite	1 1/3 qts. per acre in 400 gals.	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed. Thoroughly wet the foliage, stem, and crown of the plant. For multiple applications, do not apply at intervals less than 35 days when fruit is present.
	<ul style="list-style-type: none"> Do not make more than 2 applications per year. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 7 days. 		
SWEET CORN (Fresh Vegetable Use Only) (17) (Except California)	Corn Leaf Aphid, Whitefly	1 1/3 qts. per acre	Apply using ground boom application equipment only. Make application when insects appear or feeding is noticed.
	Corn Earworm	2 qts. per acre	Apply using ground boom application equipment only. Make a single application when silks first appear.
	<ul style="list-style-type: none"> Do not apply to sweet corn to be processed. Do not feed treated forage or ensilage to livestock or allow livestock to graze in treated fields. Do not make aerial applications. Do not make more than 1 application per year. Do not exceed a maximum of 1.5 lbs. active ingredient (i.e., 2 qts. of product) per acre per year. Only mechanical harvesting is permitted. Restricted-Entry Interval (REI) is 17 days. 		
SWEET CORN (Fresh Vegetable Use Only)(17) (California only)	Corn Leaf Aphid, Whitefly	1 1/3 qts. per acre	Apply using ground boom application equipment only. Make application when insects appear or feeding is noticed.
	Corn Earworm	2 qts. per acre	Apply using ground boom application equipment only. Make a single application when silks first appear.
	<ul style="list-style-type: none"> Do not apply to sweet corn to be processed. Do not feed treated forage or ensilage to livestock or allow livestock to graze in treated fields. Do not make aerial applications. Do not make more than 1 application per year. Do not exceed a maximum of 1.5 lbs. active ingredient (i.e., 2 qts. of product) per acre per year. Only mechanical harvesting is permitted. Restricted-Entry Interval (REI) is 17 days. 		
TOBACCO (5) (For Use in IN, KY, OH, PA, TN, and WV only)	Aphids (including Green Peach Aphid, Tobacco Aphid), Budworm, Cabbage Looper, Flea Beetles, Hornworms	2/3 qt. per 100 gals.	Seed Bed: Make applications when insects appear or feeding is noticed. Apply about 6 gals. of finished spray per 100 square yards.
	Green June Bug Larvae	2/3 pt. per 100 gals.	Plant Bed: Make applications when insects appear or feeding is noticed. Drench at a rate of 1 gal. per square yard.
	Aphids (including Green Peach Aphid, Tobacco Aphid), Budworm, Cabbage Looper, Flea Beetles, Green June Bug Larvae, Hornworms	2/3 – 1 1/3 qts. per acre	Field: Make applications when insect activity or feeding is noticed.
	Stink Bugs	2/3 qt. per 100 gals.	Field: Make applications when insect activity or feeding is noticed.
	<ul style="list-style-type: none"> Do not make more than 2 applications per year. Do not use high-pressure hand-wand equipment. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 10 days for foliar field treatment and 13 days for foliar seed bed treatment and plant bed treatment. 		
TOMATOES (Field use only) (4) (Except California)	Aphid, Blister Beetle, Colorado Potato Beetle, Flea Beetle, Tomato Hornworm	2/3 – 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	Cabbage Looper, Stink Bug	1 – 1 1/3 qts. per acre	
	Tomato Fruitworm, Tomato Russet Mite, Whitefly, Yellowstriped Armyworm	1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	Whitefly	2/3 qt. per 100 gals. of water Use 100-200 gals. of spray per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed. Higher spray volumes may be necessary for thorough coverage when high whitefly populations exist.
	<ul style="list-style-type: none"> Do not make more than 4 applications per year. Use in greenhouses is not permitted. Do not make aerial applications. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 4 days. 		

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TOMATOES (Field use only) (4) (California only)	Aphids, Blister Beetle, Colorado Potato Beetle, Flea Beetle, Tomato Hornworm, Webworm	2/3 - 1 1/3 qts. per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed.
	Cabbage Looper, Stink Bug	1 - 1 1/3 qts. per acre	
	Tomato Fruitworm, Tomato Russet Mite, Whitefly, Yellowstriped Armyworm	1 1/3 qts. per acre	
	Whitefly	2/3 qt. per 100 gals. Use 100-200 gals. of spray per acre	Apply using ground boom application equipment only. Make applications when insects appear or feeding is noticed. Higher spray volumes may be necessary for thorough coverage when high whitefly populations exist.
<ul style="list-style-type: none"> Do not make more than 4 applications per year. Use in greenhouses is not permitted. Do not make aerial applications. Do not exceed a maximum of 2 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. Restricted-Entry Interval (REI) is 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. Do not store below 20°F (-7°C). Do not use or store near heat, open flame, or hot surfaces. 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, replace lid 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. To confine spill: Dike surrounding area or absorb with sand, cat litter, or commercial clay. 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 (five gallons 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 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. If recycling is not available, puncture or dispose of in a sanitary landfill or incineration or if allowed by state and local authorities, by burning. If burned stay out of smoke. Do not cut or weld metal containers.

Nonrefillable Container (greater than five gallons): 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. If recycling is not available, puncture or dispose of in a sanitary landfill or incineration or if allowed by state and local authorities, by burning. If burned stay out of smoke. Do not cut or weld metal containers.

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 final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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.

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CALIFORNIA SUPPLEMENTAL LABEL

(Note to label editor/typesetter; ensure this font is the same size as the Keep Out of Reach of Children. This note to the label editor will not appear on commercial product labeling.)

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/year. (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 CHANNLED 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® is a registered trademark of Makhteshim Chemical Works, Ltd.

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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 applicators certification.

Supplemental Labeling

THONEX[®] 3EC

INSECTICIDE

For Agricultural or Commercial Use Only

NOT FOR USE OR STORAGE IN OR AROUND RESIDENTIAL SITES-SEE Directions for Use/General instructions FOR PROHIBITED AREAS.

ACTIVE INGREDIENT	% BY WT.
Endosulfan: (Hexachlorohexahydromethano-2,4,3-benzodioxathiepin-3-oxide).....	33.7%
INERT INGREDIENTS:*	66.3%
	TOTAL 100.0%

*Contains Xylene Range Aromatic Solvent.
Contains 3 pounds of endosulfan per gallon.

KEEP OUT OF REACH OF CHILDREN



DANGER-POISON



PELIGRO

EPA Reg. No. 66222-63

Manufactured for:

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

DIRECTIONS FOR USE

- It is a violation of Federal law to use this product inconsistent with its labeling.
- This supplemental labeling must be in the possession of the user at the time of pesticide application. This labeling supersedes the labeling found attached to the container.
- Follow all applicable directions, restrictions, Worker Protection Standard requirements, and precautions on this Supplemental label and the EPA registered label.

NOTE TO ALL USERS

<p>It is unlawful to use this same product from containers bearing previous (older) versions of labeling after July 31, 2012 on the following crops which may have appeared on those earlier labels. Note: These uses do not appear on this new label and therefore product from this container cannot be used on crops in this first listing except for currently approved Special Local Need registrations (FIFRA Section 24(c)).</p>	<p>Almonds; Apricots; Broccoli; Brussels sprouts; Carrots; Cauliflower; Celery (except Arizona); Cherries (tart); Citrus (nonbearing and nursery stock); Collard greens; Dry beans; Dry peas; Eggplant; Filbert; Kale; Kohlrabi; Macadamia; Mustard Greens; Nectarines (California only); Plum; Prune; Poplars grown for pulp and timber; Strawberries (annual); Sweet potatoes; Tomatoes (greenhouse-grown only); Turnips; Walnuts; Ornamental Trees, Shrubs, and Herbacious Plants-includes boxelder; dogwood; lilac; Douglas fir (grown for ornamentals, nursery stock, or Christmas trees; Pacific northwest only); elms; leatherleaf fern; pines (Austrian, jack, red, scotch, white); shade trees (except birch); shrubs; spruce (New England area only); taxus; orchids; hybrid poplars; Christmas trees.</p>
<p>It is unlawful to use this product after July 31, 2012 on the following crops: Note: These uses may appear on this new label and product from this container can be used on crops in this listing and the listings that follow until the specified end-of-use date for each listing.</p>	<p>Cabbage; Celery (Arizona only); Cherries (sweet); Cotton; Cucumbers; Lettuce; Melons (summer-includes cantaloupe, honeydew, watermelon); Nectarines (except California); Peaches; Squash (summer); Tobacco.</p>

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It is unlawful to use this product after July 31, 2013 on the following crops:	Pears.
It is unlawful to use this product <i>in the state of Florida</i> after December 31, 2014 on the following crops:	Apples, Blueberries, Peppers, Potatoes, Pumpkins, Sweet corn, Tomatoes, Winter Squash.
It is unlawful to use this product after July 31, 2015 on the following crops:	Apples, Blueberries, Peppers, Potatoes, Pumpkins, Sweet corn, Tomatoes, Winter Squash.
It is unlawful to use this product after July 31, 2016 on the following crops:	Pineapples; Strawberries (perennial and biennial); Vegetable crops grown for seed (alfalfa, broccoli, Brussels sprouts, cabbage, cauliflower, Chinese cabbage, collard greens, kale, kohlrabi, mustard greens, radish, rutabaga, turnip).

- It is unlawful to use this product on any crop or use site after July 31, 2016.

PREHARVEST INTERVAL

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

CROP	INSECTS CONTROLLED	RATE OF APPLICATION	METHOD OF APPLICATION
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)	½ qt./100 gals. or a maximum of 2 2/3 qts. per acre	Apply using airblast application equipment only. 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 ½ qt. per 100 gals. to control Apple Aphid and Rosy Apple Aphid. For control of Tentiform Leafminer, make first application as soon as moth flights begin. A second application should be made 10 days later.
	<ul style="list-style-type: none"> 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 year. Do not make aerial applications. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. 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) is 7 days. 		
APPLES (30) (California only)	Aphids (including Apple Aphid, Rosy Apple Aphid, Woolly Apple Aphid), Apple Rust Mite, White Apple Leafhopper (first generation)	½ qt. per 100 gals. or a maximum of 2 2/3 qts. per acre	Apply using airblast application equipment only. For best control of first generation White Apple Leafhopper, apply when nymphs first appear on leaves. If necessary, prior to petal fall, use ½ qt. per 100 gals. to control Apple Aphid and Rosy Apple Aphid.
	<ul style="list-style-type: none"> Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not make aerial applications. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 2 2/3 qts. of product) per acre per year. 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) is 7 days. 		