

Pm 13

8340-49

ACCEPTED

FEB - 2 1993

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. **8340-49**

Revised February 1, 1993

PHASER[®] 50 WP INSECTICIDE

For Agricultural or Commercial Use Only

ACTIVE INGREDIENT:

endosulfan (hexachlorohexahydromethano-2,4,3-benzodioxathiopin-3-oxide).....	50.00%
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INERT INGREDIENTS	50.00%
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TOTAL:	100.00%
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KEEP OUT OF REACH OF CHILDREN



**DANGER
POISON
PELIGRO**



PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

STATEMENT OF PRACTICAL TREATMENT

If Swallowed: Call a physician or Poison Control Center immediately. Vomiting should be induced only under medical supervision. Drink one or two glasses of water and induce vomiting by giving one (1) ounce of syrup of ipecac, if available, or by touching the back of the throat with a finger. Do not induce vomiting or give anything, by mouth to a person who is unconscious or convulsing.

If Inhaled: Remove victim to fresh air. Apply artificial respiration if indicated.

If on Skin: Remove contaminated clothing and wash skin with soap and water.

If in Eyes: Flush eyes with plenty of water. Call a physician immediately.

For medical or environmental emergency, call 1-800-228-5635, ext. 132.

EPA REG. NO. 8340-49
EPA EST. NO.

NET CONTENTS:

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Route 202-206 North
Somerville NJ 08876
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Hoechst Celanese

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.

PRECAUTIONARY STATEMENTS

DANGER

Hazards to Humans (& Domestic Animals)

Fatal if swallowed or inhaled. Do not breath vapors or spray mist. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Applicators must wear a long sleeve shirt, trousers, unlined waterproof gloves made of natural rubber or neoprene, full foot covering (such as shoes or boots), head covering (such as a hat) and a pesticide mask or respirator jointly approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 30 CFR Part 11 for protection against endosulfan. Mixers and/or loaders must wear a chemical resistant apron and goggles or face shield in addition to all of the protective equipment specified for applicators. Do not apply or allow to drift to areas occupied by unprotected humans or beneficial animals. Wash thoroughly with soap and water after handling and before smoking or eating. Remove contaminated clothing and wash with soap and hot water before reuse.

Environmental Hazards

This product is toxic to fish, birds and other wildlife. Birds feeding on treated areas may be killed. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Due to the risk of runoff and drift, do not apply within a distance of 300 feet of lakes, ponds, streams, and estuaries. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab, and other aquatic life are important resources. 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 or Chemical Hazards

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

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 through any type of irrigation system.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. When mixing, loading, and applying this product wear unlined waterproof gloves and a MSHA/NIOSH approved pesticide mask or respirator (see "Hazards to Humans & Domestic Animals", above, for complete protective clothing requirements).

Re-Entry

Do not enter treated areas without appropriate protective clothing for 24 hours. Protective clothing means, at least a hat or other suitable head covering, a long sleeve shirt and long legged trousers or a coverall type garment (all of closely woven fabric covering the body, including the arms and legs), shoes, and socks.

Because certain states may require more restrictive re-entry intervals for various crops treated with this product, such as the 48 hour re-entry interval established by California, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Inform the workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated, and appropriate actions to take in case of accidental exposure. An example of such information is given under written warnings. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warning must include the following information:

DANGER

Area treated with endosulfan on (insert date). Do not enter without appropriate protective clothing for 24 hours (insert State Department of Agriculture's re-entry interval if more restrictive).

In case of accidental exposure to pesticide spray or dust, wash the skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse. If in eyes, flush with plenty of water. If inhaled, go to an area where the pesticide has not been applied. Get medical attention if needed.

STORAGE AND DISPOSAL

Pesticide Storage

Do not store in or around the home or store near heat, open flame, or hot surfaces.

Keep out of reach of children and animals. Store in original containers only. Store in 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. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

Pesticide Storage (continued)

In case of spill: Avoid contact, isolate the area, and keep out animals and unprotected persons.

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 pesticides, 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

Completely empty bags into application equipment. Then dispose of empty bags in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

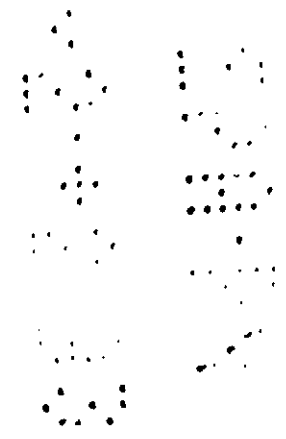
GENERAL INSTRUCTIONS

Not for use or storage in or around the home.

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. 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 1 gallon 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 50% Thaser Wettable, mix in a minimum of 10 gallons of water.

Do not root crops other than carrots, potatoes, sweet potatoes, and sugar beets as follow-up crops. Observe days interval between last application and harvest indicated by number in () following the crop name.



ALFALFA (Grown for Forage) (21)

Insects Controlled	Rate of Application	Method of Application
Meadow Spittlebug	1/2 lb per acre	Apply 1 week after eggs begin to hatch or when first small masses of froth are produced in the crowns of the plant, which is usually when the alfalfa is about 4 to 6 inches tall. Apply in a minimum of 10 gallons of water per acre by ground or 2 gallons of water per acre by air.
<p>Do not graze or cut forage within 21 days of treatment. Do not apply more than once per cutting. Do not exceed a maximum of 0.75 lb. active ingredient (1.5 lbs. 50WP) per acre per year. Do not make more than 3 applications per year.</p>		

APPLES (21)

Insects Controlled	Rate of Application	Method of Application
Aphids (including Apple Aphid, Rosy Apple Aphid, Woolly Apple Aphid) Apple Rust Mite Green Fruitworm Tarnished Plant Bug White Apple Leafhopper (first generation)	1 lb. per 100 gal. 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 1 1/2 lbs. per 100 gallons to control Apple Aphid and Rosy Apple Aphid.
<p>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 exceed a maximum of 3.0 lbs. active ingredient (6 lbs. 50WP) per acre per year. Do not make more than 3 applications per year.</p>		

APRICOTS (21), NECTARINES (21), PEACHES (21)

Insects Controlled	Rate of Application	Method of Application
Peachtree Borer Lesser Peachtree Borer	1 1/2 lbs. per 100 gallons - <u>West Coast:</u> 1.0 to 1 1/2 lbs. per 100 gallons. <u>Southeastern States:</u> 3 to 5 lbs. per 100 gallons post harvest.	Best control is obtained with a single application post-harvest during the first week of September. Spray all bark areas from ground level to lower scaffold limbs.
<p><u>All uses:</u> Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not exceed a maximum of 3.0 lbs. active ingredient (6 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

APRICOTS (30), NECTARINES (30), PEACHES (30)

Insects Controlled	Rate of Application	Method of Application
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	1.0 lb. per 100 gallons or a maximum of 5.0 lbs. per acre. <u>West Coast:</u> Do not use more than 6 lbs. per acre.	Make application when insects appear or feeding is noticed.
<p>Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not exceed a maximum of 3.0 lbs. active ingredient (6 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

ARTICHOKES (7)

Insects Controlled	Rate of Application	Method of Application
Aphids (including Artichoke Aphid, Green Peach Aphid)	1 1/3 to 2 lbs. per acre	Make application when insects appear or feeding is noticed. Apply in a minimum of 20 gallons of water per acre by ground and in a minimum of 10 gallons of water per acre by air..
Artichoke Plume Moth	2 lbs. per acre	
<p>All uses: Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 4 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

BARLEY, OATS, RYE, WHEAT

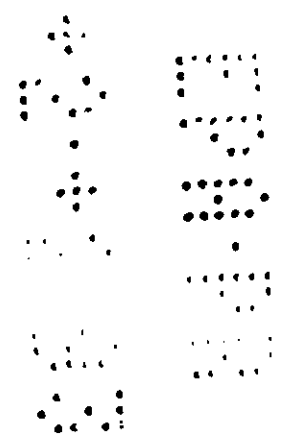
Insects Controlled	Rate of Application	Method of Application
Army Cutworm	1.0 lb. per acre	For aerial application, apply in 2 gallons of diesel fuel oil per acre.
Cereal Leaf Beetle (Illinois, Indiana, Michigan and Ohio only)	1/2 to 1.0 lb. per acre	Apply when small larvae are readily found in the field. For aerial application, use a minimum of 1 to 2 gallons of water per acre.
<p>All uses: Do not apply after heads begin to form. Do not feed treated forage to livestock. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., 2.0 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

BEANS, Succulent and Dry (except Lima Beans) (3) and SOUTHERN FIELD PEAS (Succulent Type, including Black-eyed Peas, Crowder Peas and Southern Peas) (3)

Insects Controlled	Rate of Application	Method of Application
Black Bean Aphid Bean Leaf Skeletonizer Cowpea Curculio Cucumber Beetle Green Stink Bug Mexican Bean Beetle	1 to 2 lbs. per acre	Make application when insects appear or feeding is noticed. For control of Cowpea Curculio, make 3 applications at 5-day intervals starting when the pods are 1/2 inch long.
Do not feed treated threshings or allow livestock to graze in treated fields. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not use on lima beans that are to be removed from the field for processing. Do not apply after buds are well formed. Do not make more than 3 applications per year.		

BLUEBERRIES

Insects Controlled	Rate of Application	Method of Application
Blueberry Bud Mite	3.0 lbs. per acre in 300 gallons of water	Apply immediately after harvest and repeat 6 to 8 weeks later.
Do not apply after buds are well formed. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6.0 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.		



BROCCOLI (7), BRUSSEL SPROUTS (14), CABBAGE (7), CAULIFLOWER (14)

Insects Controlled	Rate of Application	Method of Application
Cabbage Aphid Cabbage Looper Cross-striped Cabbageworm Diamondback Moth (larvae) Flea Beetle Harlequin Bug Imported Cabbageworm Stink Bugs	1 1/2 to 2 lbs. per acre	Make application when insects appear or feeding is noticed.
Armyworms Cutworms	2 lbs. per acre	
<p>All uses: Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 4 applications per year.</p>		

CARROTS (7)

Insects Controlled	Rate of Application	Method of Application
Green Peach Aphid	1 to 2 lbs. per acre	Make application when insects appear or feeding is noticed.
<p>Do not use tops for food or feed. Do not exceed a maximum of 1.0 lbs. active ingredient (i.e., 2 lbs. 50WP) per acre per year. Do not make more than 1 applications per year.</p>		

CELERY (4)

Insects Controlled	Rate of Application	Method of Application
Green Peach Aphid Cabbage Looper	1 to 2 lbs. per acre	Make application when insects appear or feeding is noticed.
Do not exceed a maximum of 1.0 lbs. active ingredient (i.e., 2 lbs. 50WP) per acre per year. Do not exceed more than 1 application per year.		

CELERY (7)

Insects Controlled	Rate of Application	Method of Application
Green Peach Aphid	1 lb. per acre	Make application when insects appear or feeding is noticed.
Do not exceed a maximum of 1.0 lb. active ingredient (i.e., 2 lbs. 50WP) per acre per year. Do not exceed 2 applications per year.		

CHERRIES (21)

Insects Controlled	Rate of Application	Method of Application
Peachtree Borer Lesser Peachtree Borer	1-1/2 lb. per 100 gallons - <u>West Coast</u> : 1.0 to 1 1/2 lbs. per 100 gallons	Thoroughly wet all bark from ground to scaffold limbs.
Black Cherry Aphid Green Fruitworm Plum Rust (Nursery Mite)	1.0 lb. per 100 gallons or 4.0 to 5.0 lbs. per acre	Make application when insects appear or feeding is noticed.
<u>Pacific Northwest only</u> : Eyespotted Bud Moth Fruittree Leafroller		For Bud Moth control, apply at "popcorn" stage. For Leafroller control, apply during pre-pink stage of growth.
<u>Michigan only</u> : Mineola Moth	2.0 lbs. per 100 gallons	Apply in the delayed dormant period.
<p><u>All uses:</u> Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6.0 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

CHERRY, PEACH, PLUM NURSERY STOCK DIP

Insects Controlled	Rate of Application	Method of Application
Peachtree Borer	4.0 lbs. per 40 gallons of water	Mix thoroughly. Immerse trees so that the roots and crowns are covered well above the grafting bud scar.
<p>Wear rubber gloves during the dipping operation. Plant immediately or dry before returning stock to storage.</p>		

CITRUS (Non-Bearing Trees and Nursery Stock)

Insects Controlled	Rate of Application	Method of Application
Citrus Aphid	1/2 lb. per 100 gallons or a maximum of 5.0 lbs. per acre	Make application when insects appear or feeding is noticed.
<p>Do not apply to bearing trees or trees that will bear fruit within 12 months. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

COLLARDS (21)

Insects Controlled	Rate of Application	Method of Application
Cabbage Looper Diamondback Moth (larvae) Harlequin Bug Imported Cabbageworm	1-1/2 lbs. per acre	Make application when insects appear or feeding is noticed.
<p>Do not exceed a maximum of 1.0 lb. active ingredient (i.e., 2 lbs. 50WP) per acre per year. Do not make more than 1 application per year.</p>		

COTTON

Insects Controlled	Rate of Application	Method of Application
Boll Weevil	1 - 3 lbs. per acre	Applications may be made using ground or aerial application equipment. The higher rate should be used under heavy pest pressure.
Bollworm Cabbage Looper Cotton Leafperforator Lygus Bug Stink Bug	2 to 3 lbs. per acre	
Thrips	3.0 lbs. per acre	
<p><u>All uses:</u> Do not apply after bolls open. Do not graze dairy or meat animals in treated fields. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6.0 lbs. 50WP) per acre per year.</p>		

CUCUMBERS (2), MELONS (2), SUMMER AND WINTER SQUASH (2)

Insects Controlled	Rate of Application	Method of Application
Aphids Cucumber Beetles Melonworm Pickleworm Windworm (on watermelons) Squash Beetle Squash Bug Squash Vine Borer Striped Flea Beetle	1 to 2 lbs. per acre	Make application 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 Leafroller Omniverous	2 lbs. per acre	
<p>All uses: Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 6 applications per year.</p>		

EGGPLANT (1)

Insects Controlled	Rate of Application	Method of Application
Blister Beetle Colorado Potato Beetle Flea Beetles Green Peach Aphid Green Stink Bug Whitefly	1 lb. per acre	Make application when insects appear or feeding is noticed.
<p>Do not exceed a maximum of 1.0 lb active ingredient (i.e., 2 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

FILBERTS (1)

Insects Controlled	Rate of Application	Method of Application
Filbert Aphid Filbert Leafroller	1 lb. per 100 gal. or 3 - 4 lbs. per acre	Make application when insects appear or feeding is noticed.
<p>Do not graze livestock on orchard crops or grasses in treated areas. Do not exceed 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient per acre per year (i.e., 6 lbs. 50 WP).</p>		

GRAPES (7)

Insects Controlled	Rate of Application	Method of Application
Grape Leafhopper Grape Phylloxera (leaf form) Rose Chafer	1 lb. per 100 gallons or 2-3 lbs. per acre	Ground application is preferred.
<p>Do not use on Baco No. 1, Baco Noir, Concord, Seibel 7053 (chancellor), Seibel 8357 (colobel), Seibel 13053 (cascade) varieties of grapes as severe injury is likely to occur.</p> <p>Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6.0 lbs. 50WP) per acre per year.</p> <p>Do not make more than 3 applications per year.</p>		

KALE (21)

Insects Controlled	Rate of Application	Method of Application
Cabbage Flea Beetle Harlequin Bug Imported Cabbageworm	1 1/2 lbs. per acre	Make application when insects appear or feeding is noticed.
Do not make more than 1 application per season.		

LETTUCE (14)

Insects Controlled	Rate of Application	Method of Application
Cabbage Looper Diamondback Moth (larvae) Green Peach Aphid Imported Cabbageworm	1 1/2 to 2 lbs. per acre	Make application when insects appear or feeding is noticed.
<p><u>On Head Lettuce:</u> Do not make more than 3 applications after thinning. Remove wrapper leaves at harvest.</p> <p><u>On Leaf Lettuce:</u> Do not exceed 2 applications per year.</p> <p><u>On All Crops:</u> Do not feed crop refuse to livestock. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.</p>		

MUSTARD GREENS (21)

Insects Controlled	Rate of Application	Method of Application
Aphids Cabbage Looper Imported Cabbageworm	1 1/2 lbs. per acre	Make application when insects appear or feeding is noticed.
<p>Do not exceed a maximum of 1.0 lb. active ingredient (i.e., 2.0 lbs. 50WP) per acre per year.</p> <p>Do not make more than 1 application per year.</p>		

PEARS (7)

Insects Controlled	Rate of Application	Method of Application
Green Fruitworm Tarnished Plant Bug	1.0 lb. per 100 gallons or 4 to 5 lbs. per acre	Make application 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 gallons of water for aerial application in 40 gallons of water for semi- concentrate or in 300 gallons 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. per 100 gallons or 4 to 5 lbs. per acre.	Make application when insects appear or feeding is noticed. Stink Bugs must be wet by spray to obtain control.
Conspere Stink Bug (soil treatment)	1 lb. per 100 gallons; 200 to 400 gallons per acre	Apply to orchard floor and around trees prior to bloom.
Pear Leaf Blister Mite	1/2 to 1 lb. per 100 gallons	Apply as a post harvest or dormant treatment.
<p>All uses: Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p> <p>NOTE: Aerial application may not result in satisfactory control and should only be employed if impossible to apply by ground.</p>		

PEAS (Seed Crop Only) (1)

Insects Controlled	Rate of Application	Method of Application
Pea Aphid Pea Weevil	1 to 2 lbs. per acre	Make application when insects appear or feeding is noticed.
<p>Use only on peas to be harvested by combine. Do not feed treated vines or threshings to livestock or allow livestock to graze in treated fields. Do not exceed a maximum of 1.5 lbs. active ingredient (e.e., 3 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

PECANS

Insects Controlled	Rate of Application	Method of Application
Black Pecan Aphid Pecan Nut Casebearer Spittlebug	1 1/2 lbs. to 100 gallons	Make application when insects appear or feeding is noticed. For Casebearer, apply when eggs of first generation appear on the tips of the young nuts. Another application may be required after the second generation of eggs is deposited. For Spittlebug, apply when first leaves are half grown and repeat as required.
Pecan Leaf Phylloxera	1 to 1 1/2 lbs per 100 gallons	Apply when nymphs appear and before they are enclosed in plant tissue. For high populations, use the higher rate.
<p><u>All uses:</u> Do not apply after shuck is split. Do not graze livestock on orchard crops or grasses in treated areas. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

PEPPERS (1)

Insects Controlled	Rate of Application	Method of Application
Flea Beetles Green Peach Aphid Hornworms Pepper Maggot	1 lb. per acre	Make application when insects appear or feeding is noticed.

PEPPERS (4)

Insects Controlled	Rate of Application	Method of Application
Flea Beetles Green Peach Aphid Hornworms Pepper Maggot	2 lbs. per acre	Make application when insects appear or feeding is noticed.
Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 4 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.		

PLUMS (7), PRUNE: (7)

Insects Controlled	Rate of Application	Method of Application
Fruittree Leafroller (Pacific Northwest Only)	1 lb. per 100 gallons or 4 to 5 lbs. per acre	Apply during pre-pink stage of growth when insects appear or feeding is noticed.
Aphids (including Hop Aphid, Leafcurl 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	Use 1 1/2 lbs. per 100 gallons, or 4 to 5 lbs. per acre	Make application when insects appear or feeding is noticed.
Lesser Peachtree Borer	1 1/2 lbs. per 100 gallons or 4 to 5 lbs. per acre	Apply spray to thoroughly wet the trunk and main branches.
Peachtree Borer	1 1/2 lbs. per 100 gallons or 4 to 5 lbs. per acre. West Coast: 1 to 1 1/2 lbs. per 100 gallons.	Spray thoroughly to cover all bark areas from ground to scaffold limbs
<p><u>All uses:</u> Do not allow livestock to graze on orchard crops or grasses in treated areas. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

POTATOES (1)

Insects Controlled	Rate of Application	Method of Application
Aphids Armyworms, Southern Colorado Potato Beetle Green Stink Bug Leaffooted Bug Potato Flea Beetles Potato Leafhopper Potato Tuberworm Whitefly	1 to 2 lbs. per acre	Make application when insects appear or feeding is noticed.
Threelined Potato Beetle	1 lb. per acre	
European Corn Borer Potato Psyllid	1 1/2 to 2 lbs. per acre	
False Chinch Bug	2 lbs. per acre	
<p><u>All uses:</u> Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 6 applications per year.</p>		

SAFFLOWER

Insects Controlled	Rate of Application	Method of Application
Green Peach Aphid	2 lbs. per acre	Make application when insects appear or feeding is noticed.
<p>Do not apply after flower heads open. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 4 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.</p>		

PUMPKINS (1)

Insects Controlled	Rate of Application	Method of Application
Aphids Cucumber Beetle Squash Vine Borer	1 to 2 lbs. per acre	Make application when insects appear or feeding is noticed. For vine borer, apply to flower buds, stems, and vines beginning when moths first appear.
<p>Do not exceed a maximum of 3.0 lbs.a.i. (6.0 lb., 50 WP) per acre per year. Do not make more than 6 applications per year.</p>		

SPINACH (21)

Insects Controlled	Rate of Application	Method of Application
Crown Mite Green Peach Aphid	1 1/2 lbs. per acre	Make application when insects appear or feeding is noticed.
Do not exceed a maximum of 1.0 lb. active ingredient (i.e., 2 lbs. 50WP) per acre per year. Do not make more than 1 application per year.		

STRAWBERRIES (4)

Insects Controlled	Rate of Application	Method of Application
Meadow Spittlebug Strawberry Aphid Tarnished Plant Bug	2 lbs. per acre	Make application when insects appear or feeding is noticed. Do not reapply within 15 days or more than twice during a 35 day period during the fruiting period.
Cyclamen Mite	4 lbs. per acre in 400 gallons of water	Make application 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 day period during the fruiting period
<u>All uses:</u> Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 3 applications per year.		

STRAWBERRIES (4) - Northwest Use Only

Insects Controlled	Rate of Application	Method of Application
Garden Symphylan (aids in reducing damage)	2 lbs. per 100 gallons (plant dip)	Mix thoroughly. Dip entire plant. When immersing bundles of plants, make certain any trapped air is forced out to assure thorough wetting of the entire plant.
Wear rubber gloves during the dipping operation. Drain and allow plants to dry before setting them out in the field.		

SUGAR BEETS (30)

Insects Controlled	Rate of Application	Method of Application
Green Peach Aphid	1 to 2 lbs per acre	Make application when insects appear or feeding is noticed. Make one or two applications per year as needed for control.
<u>Western Use Only:</u> Meadow Spittlebug	1 lb. per acre	
Sugar Beet Webworm	1 1/2 to 2 lbs. per acre	
<u>All uses:</u> Do not feed treated tops to livestock. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., 4 lbs. 50WP) per acre per year. Do not make more than 2 applications per year.		

SUNFLOWERS (1)

Insects Controlled	Rate of Application	Method of Application
Sunflower Moth	2 lbs. per acre	Make application when insects appear or feeding is noticed. Make the first application at the onset of bloom. Allow 7 days between repeat applications.
<p>Do not feed treated forage to livestock. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 3 applications per year.</p>		

SWEET CORN (Fresh Vegetable Use Only) (1)

Insects Controlled	Rate of Application	Method of Application
Corn Leaf Aphid	2 lbs. per acre	Make application when insects appear or feeding is noticed.
Corn Earworm	3 lbs. per acre	Apply when silks first appear and continue until they begin to dry. Allow 5 days between applications.
<p><u>All uses:</u> 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 exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 3 applications per year.</p>		

SWEET POTATOES (1)

Insects Controlled	Rate of Application	Method of Application
Sweet Potato Flea Beetle	1 lb. per acre	Make application when insects appear or feeding is noticed. For Flea Beetle control, begin applications shortly after transplanting or as soon as flea beetles appear.
<p>Do not feed cull potatoes to livestock or allow livestock to graze in treated fields. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP per acre per year. Do not make more than 3 applications per year.</p>		

TOBACCO (5)

Insects Controlled	Rate of Application	Method of Application
Aphids (including Green Peach Aphid, Tobacco Aphid) Budworm Cabbage Looper Flea Beetles Hornworms	<u>Seed Bed:</u> 1 lb. per 100 gallons of water	Make application when insects appear or feeding is noticed. Apply approximately 6 gallons of finished spray per 100 square yards.
Green June Bug (larvae)	<u>Plant Bed:</u> 1/2 lb. per 100 gallons of water	Make application when insects appear or feeding is noticed. Drench at a rate of 1 gallon per square yard.
Aphids (including Green Peach Aphid, Tobacco Aphid) Budworm Cabbage Looper Flea Beetles Green June Bug (larvae) Hornworms	<u>Field:</u> 1 to 2 lbs. per acre	Make application when insect activity or feeding is noticed.
<p><u>All uses:</u> Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year. Do not make more than 6 applications per year.</p>		

TOMATOES (Field and Greenhouse) (2)

Insects Controlled	Rate of Application	Method of Application
Blister Beetles Colorado Potato Beetle Flea Beetles Green Peach Aphid Tomato Hornworm Webworm (California only)	1 to 2 lbs. per acre	Make application when insects appear or feeding is noticed.
Cabbage Looper Stink Bug	1 1/2 to 2 lbs. per acre	
Tomato Fruitworm Yellowstriped Armyworm	2 lbs. per acre	
Whitefly	1 lb. per 100 gallons, 100 to 200 gallons of water per acre	

All uses:

Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.

Do not make more than 6 applications per year.

WALNUTS

Insects Controlled	Rate of Application	Method of Application
Walnut Aphid	3 to 4 lbs. per acre	Make application when insects appear or feeding is noticed.

Do not apply after husk split.
Do not graze livestock on orchard crops or grasses in treated areas.
Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.
Do not make more than 2 applications per year.

**COMMERCIALLY GROWN ORNAMENTALS
ORNAMENTAL PLANTS**

LEATHERLEAF FERN

Insects Controlled	Rate of Application	Method of Application
Leatherleaf Fern Borer	1 lb. per 100 gallons	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.
Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.		

ORNAMENTALS (Greenhouse and Out-of-Doors)

Insects Controlled	Rate of Application	Method of Application
Aphids Cyclamen Mite Rose Chafer White fly	1 lb. per 100 gallons of water	Make application when insects appear or feeding is noticed.
On chrysanthemums, best results will be obtained if applied before plants flower. Do not apply to "Bonnafon Deluxe", "Fred Shoesmith", and "White Knight" chrysanthemums as injury may result. Do not use on Birch trees. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.		

ORNAMENTAL TREES AND SHRUBS

DOGWOOD, LILAC

Insects Controlled	Rate of Application	Method of Application
Dogwood Borer Lilac Borer	1 to 2 lbs. per 100 gallons	Apply in early June and repeat in 10-14 days. Drench all bark areas down to the ground level.
Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.		

DOUGLAS FIR (Grown for Ornamentals, Nursery Stock or Christmas Trees)
Pacific Northwest Only

Insects Controlled	Rate of Application	Method of Application
Aphids Cooley Spruce Gall Adelgid Douglas Fir Needle Midge	1 lb. per 100 gallons of water. (1 tablespoon per gallon)	Make application 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.
Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.		

PINES (Austrian, Jack, Red, Scotch, White)

Insects Controlled	Rate of Application	Method of Application
Zimmerman Pine Moth	1 1/2 lbs. per 100 gallons of water	Apply in mid-April and again, if necessary, in late fall. Thoroughly wet bark and main stem, especially where branches join main stem.
Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.		

SHADE TREES (except Birch), SHRUBS

Insects Controlled	Rate of Application	Method of Application
Aphids	1 lb. per 100 gallons of water	Make application when insects appear or feeding is noticed.
Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.		

SPRUCE (New England Area Only)

Insects Controlled	Rate of Application	Method of Application
Spruce Gall Aphid	1 lb. per 100 gallons of water	Apply in late April or early May when aphids are present but before galls are formed.
Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.		

TAXUS

Insects Controlled	Rate of Application	Method of Application
Taxus Bud Mite	1 lb. per 100 gallons of water	Make 3 to 5 applications beginning in mid-May. Thoroughly spray foliage, twigs and bark.
Black Vine Weevil	2 lbs. per 100 gallons	Spray thoroughly and drench the soil under the plants. Apply when the weevils first appear and repeat in 14 days.
<u>All uses:</u> Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 6 lbs. 50WP) per acre per year.		

IMPORTANT NOTICE: DISCLAIMER

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