

PM13 10163-110

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

1-26-94

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Bethany G. Hulcy  
GOWAN COMPANY  
BOX 5569  
YUMA, AZ 85366

Subject: Label Amendment Submission of 08/05/93 in Response to PR Notice 93-7  
EPA Reg. No. 10163-110  
GOWAN ENDOSULFAN 3 EC

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

**WHAT THIS ACCEPTANCE MEANS:**

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

**WHAT YOU NEED TO DO NEXT:**

Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable  
Printed with Soy/Canola Ink on paper that  
contains at least 50% recycled fiber

2017

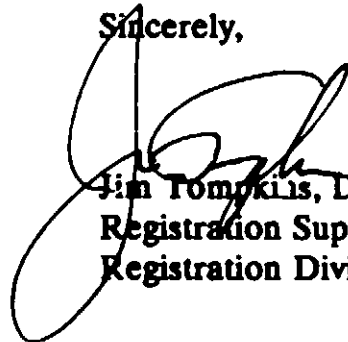
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs (7505C)  
U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief  
Registration Support Branch  
Registration Division (7505W)

Attachment

3 of 7

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

JAN 26 1994

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
10163-110

**GOWAN ENDOSULFAN 3EC**  
RECOMMENDED FOR AGRICULTURAL USE

	% By Wt
Active Ingredient: Endosulfan (Hexachlorohexahydromethano-2, 4, 3-bensodioxathiepin 3-oxide) .....	34.0%
Inert Ingredients* : .....	66.0%
	Total 100.0%

Contains 3 pounds of Endosulfan per gallon  
\*Contains xylene range aromatic solvent

**KEEP OUT OF REACH OF CHILDREN**



**DANGER**

**POISON**

**PELIGRO**

**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.)**

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED-** Call a physician or Poison Control Center immediately. Vomiting should be induced only under the direct supervision of a physician because of the risk of aspiration pneumonia. 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. Get medical attention.

**IF ON SKIN-** Remove contaminated clothing and wash affected areas with soap and water. Get medical attention.

**IF IN EYES-** Flush eyes with plenty of water. Call a physician immediately.

**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 by injection 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. Solvent presents aspiration hazard. Gastric lavage is indicated if material was taken internally.

Net Contents \_\_\_\_\_ Gal.

EPA Reg. No. 10163-110  
EPA Est. No. 10163-AZ-1

Gowan Company  
P.O. Box 5569  
Yuma, AZ 85366-5569

4077

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

**DANGER-Fatal if swallowed. Causes eye damage. May be fatal if inhaled or absorbed through skin. Avoid contact with skin, eyes, or clothing. Do not breathe spray mist or vapors. Do not apply or allow to drift to areas occupied by unprotected humans or beneficial animals.**

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category **G** on an EPA chemical resistance category selection chart.

**Applicators and other handlers must wear:**

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as Barrier Laminate or Viton  $\geq 14$  mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading
- A respirator with either 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 number prefix TC-14G)

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish, birds, and other wildlife. Birds feeding on treated areas may be killed. Do not apply when weather conditions favor drift from treated areas. Do not apply directly to water or wetlands. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab, or 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 the label. Do not contaminate water by cleaning of equipment or disposal of wastes.

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.

5847

### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### 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 exception 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) of 24 hours. Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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 over long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate or Viton  $\geq 14$  mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

### STORAGE AND DISPOSAL

**DO NOT CONTAMINATE** water, food or feed by storage or disposal.

**STORAGE:** Store in a cool, well ventilated area.

**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 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:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**NOT FOR USE OR STORAGE IN OR AROUND THE HOME.**

# GOWAN ENDOSULFAN 3EC

## DIRECTIONS FOR USE

*Gowan Company*

P.O. Box 5696  
YUMA, AZ 85364

EPA Reg. No. 10163-110-AA

### DIRECTIONS

Apply the listed amount per acre when insects first appear and repeat as required unless otherwise noted, to maintain effective control. Use sufficient water for thorough coverage unless otherwise noted for listed crops. 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 soil conditions, if over-irrigation is required beyond the following use patterns, supplement the control program with other suitable pesticides. Observe days interval between last application and harvest indicated by number in ( ) following the crop.

When applying this material by aircraft, use the recommended amount with sufficient air to provide a minimum of 1 gallon finished spray per acre. Use a minimum of 20 gallons of finished spray per acre for deciduous trees and vines. Where more than 2 square of this material are recommended, use with sufficient water to provide a minimum of finished spray equal to twice the amount of Gowan Endosulfan 3EC used. THIS MATERIAL MUST NOT BE USED AS AN INSECTICIDE WITHOUT DILUTION.

**ROOT CROPS:** Do not plant root crops other than carrots, potatoes, sweet potatoes, and sugar beets as follows on crops.

**COMPATIBILITY:** Gowan Endosulfan 3EC is incompatible with calcium cyanide, lime, and sulfur plus lime.

**OBIGATION STATEMENT:** Do not apply this product through a v-type of irrigation system.

### USES

Apply 1 week after eggs begin to hatch or when first small masses of both are produced in the plant which is usually about the time the adults are 4 to 6 inches tall. Apply in at least 10 gals. of water per acre by ground application or in at least 2 gals. of water per acre by airplane. Do not apply more than once per season. Do not spray or dust foliage under 21 days of treatment.

Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.

**BEST AVAILABLE COPY**

CROP	PEST	USAGE	DIRECTIONS
Apple (21) grown for storage	Apple Sapling, Green Leafhopper	27 gal./acre	Apply 1 week after eggs begin to hatch or when first small masses of both are produced in the plant which is usually about the time the adults are 4 to 6 inches tall. Apply in at least 10 gals. of water per acre by ground application or in at least 2 gals. of water per acre by airplane. Do not apply more than once per season. Do not spray or dust foliage under 21 days of treatment.
Almond	Peach Tree Borer	7 1/2 to 15 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Apple (28)	Apple Aphid, Pear Apple Aphid, Woolly Apple Aphid, Apple Red Mite	7 1/2 to 15 gal./acre or 7 1/2 to 15 gal./acre or 4 to 5 1/2 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Artichoke (7)	Artichoke Aphid, Green Peach Aphid, Artichoke Root Weevil	1 to 1 1/2 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Berry, Curr, Fig and Walnut	Away Weevil	1 1/2 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Carrot	Carrot Leaf Beetle (in U.S., Indiana, Michigan and Ohio only)	7 1/2 to 15 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Corn (2) harvested and dry (in 100 days or more)	Black Bean Aphid, Bean Leaf Beetle, Corn Earworm, Corn Root Weevil, Green Stem Borer, Mexican Bean Beetle, Western Bean Cutworm	7 1/2 to 15 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Blackberry	Bushy Bark Beetle	2 gal./100 gals. water per acre	Apply immediately after harvest and repeat 6 to 8 weeks later. Do not apply after buds are well formed.
Box Elder (Ornamental only)	Box Elder Bug	2 gal./100 gals. water or 2 gal./acre	Spray foliage and trunks when insects first appear. Repeat as required in late summer or fall growing new growth, exclude walk, fence and other areas where bugs congregates.
Broomrape (7), Cabbage (7), Brussels Sprouts (10), Cauliflower (10)	Cabbage Aphid, Cabbage Looper, Diamondback Moth larva, Harlequin Bug, Imported Cabbageworm, Flea Beetle, Green Stem Borer, Turnip Root Miner, Turnip Root Fly	1 to 1 1/2 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Brussels Sprouts (10), Cauliflower (10)	Cabbage Aphid, Cabbage Looper, Diamondback Moth larva, Harlequin Bug, Imported Cabbageworm, Flea Beetle, Green Stem Borer, Turnip Root Miner, Turnip Root Fly	1 to 1 1/2 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Brussels Sprouts (10), Cauliflower (10)	Cabbage Aphid, Cabbage Looper, Diamondback Moth larva, Harlequin Bug, Imported Cabbageworm, Flea Beetle, Green Stem Borer, Turnip Root Miner, Turnip Root Fly	1 to 1 1/2 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.

Corn (7)	Green Peach Aphid	7 1/2 to 15 gal./acre	Do not exceed 2 applications per season. Do not use later in season or repeat.
Corn (7)	Green Peach Aphid	7 1/2 gal./acre	Do not use in number of applications per season.
Corn (7)	Green Peach Aphid, Cabbage Looper	7 1/2 to 15 gal./acre	Do not exceed 2 applications.
Cherry (21)	Peach Tree Borer, Cherry Aphid, Eye Spotted Bud Moth, Pear Tree Leafhopper, Phlox M.W. Chalcid	7 1/2 to 15 gal./acre or 7 1/2 to 15 gal./acre	Do not exceed 2 applications after which year.
Cherry (21)	Eye Spotted Bud Moth, Pear Tree Leafhopper, Phlox M.W. Chalcid	7 1/2 gal./acre	For best results, make application during dormant stage of growth. For application make protection during dormant stage.
Cherry (21)	Eye Spotted Bud Moth, Pear Tree Leafhopper, Phlox M.W. Chalcid	7 1/2 gal./100 gals. water or delayed dormant spray	Do not feed call fruit to livestock after treatment to grass treated orchards.
Cherry Peach Plum Nursery, Stone Dip	Peach Tree Borer	7 1/2 to 15 gal./acre	Thoroughly wet, saturate the bundles of roots so that the roots and crowns are well covered by getting bud year. Plant immediately or dry before returning to storage.
Citrus	Citrus Aphid	3 to 6 gal./acre	Do not exceed 2 applications per season. Do not use later in season or repeat.
Colorado (21)	Cabbage Looper, Diamondback Moth larva, Harlequin Bug, Imported Cabbageworm	1 gal./acre	Do not exceed 1 application.
Corn	Blackberry, Cabbage Looper, Leafhopper, Green Stem Borer, Turnip Root Miner, Turnip Root Fly	1 to 1 1/2 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Corn	Turnip Root Miner, Turnip Root Fly	2 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Corn	Corn Leaf Beetle, Fall Webber	1 1/2 to 4 gal./acre	Apply during petiole, post or post fall. Use in a minimum of 200 gals. of water per acre (400 to 600 gals. per acre recommended). For areas less than one acre use 1 qt. per 100 gals. of water. Do not exceed one application per season. Treated plants may be fed to livestock and dairy animals. Do not graze livestock on treated areas or greens in treated areas. Do not feed red fruit to animals or allow livestock to graze treated orchards. Do not use on food 2 applications during the fruiting period.
Cucumber (2), Melon (2), Summer and Winter Squash (2)	Aphid, Cucumber Beetle, Spotted Pear Beetle, Melonworm, Flea Beetle, Bacterial Spot, Bacterial Blight, Bacterial Wilt, Bacterial Yellows, Bacterial Leaf Spot, Bacterial Leaf Blight, Bacterial Leaf Necrosis, Bacterial Leaf Roll, Bacterial Leaf Curl, Bacterial Leaf Drop, Bacterial Leaf Mosaic, Bacterial Leaf Streak, Bacterial Leaf Scorch, Bacterial Leaf Necrosis, Bacterial Leaf Blight, Bacterial Leaf Roll, Bacterial Leaf Curl, Bacterial Leaf Drop, Bacterial Leaf Mosaic, Bacterial Leaf Streak, Bacterial Leaf Scorch	7 1/2 to 15 gal./acre	For virus control, apply weekly to flower buds, stems, and under developing fruit. For control of bacterial diseases, apply weekly to foliage during the growing period. Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Cucumber (2), Melon (2), Summer and Winter Squash (2)	Aphid, Cucumber Beetle, Spotted Pear Beetle, Melonworm, Flea Beetle, Bacterial Spot, Bacterial Blight, Bacterial Wilt, Bacterial Yellows, Bacterial Leaf Spot, Bacterial Leaf Blight, Bacterial Leaf Necrosis, Bacterial Leaf Roll, Bacterial Leaf Curl, Bacterial Leaf Drop, Bacterial Leaf Mosaic, Bacterial Leaf Streak, Bacterial Leaf Scorch	7 1/2 to 15 gal./acre	For virus control, apply weekly to flower buds, stems, and under developing fruit. For control of bacterial diseases, apply weekly to foliage during the growing period. Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Cucumber (2), Melon (2), Summer and Winter Squash (2)	Aphid, Cucumber Beetle, Spotted Pear Beetle, Melonworm, Flea Beetle, Bacterial Spot, Bacterial Blight, Bacterial Wilt, Bacterial Yellows, Bacterial Leaf Spot, Bacterial Leaf Blight, Bacterial Leaf Necrosis, Bacterial Leaf Roll, Bacterial Leaf Curl, Bacterial Leaf Drop, Bacterial Leaf Mosaic, Bacterial Leaf Streak, Bacterial Leaf Scorch	7 1/2 to 15 gal./acre	For virus control, apply weekly to flower buds, stems, and under developing fruit. For control of bacterial diseases, apply weekly to foliage during the growing period. Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Damaged Late Oranges and Lemons	Damaged Borer, Late Borer	7 1/2 to 15 gal./100 gals. water	Apply in early July and repeat in 12 to 14 days. Sprinkle all bark areas down to the ground.
Eggplant (1)	Bacterial Spot, Bacterial Blight, Bacterial Wilt, Bacterial Yellows, Bacterial Leaf Spot, Bacterial Leaf Blight, Bacterial Leaf Necrosis, Bacterial Leaf Roll, Bacterial Leaf Curl, Bacterial Leaf Drop, Bacterial Leaf Mosaic, Bacterial Leaf Streak, Bacterial Leaf Scorch	7 1/2 gal./acre	Do not exceed 2 applications during the growing period.
Fiber	Fiber Aphid, Fiber Weevil	4 to 5 gal./acre	Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Grape (7)	Green Leafhopper	7 1/2 to 15 gal./acre or 7 1/2 to 15 gal./acre	Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Grain (21)	Grain Aphid	7 1/2 gal./acre	Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Leafhopper	Leafhopper	7 1/2 gal./acre	Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Lemon (10)	Cabbage Looper, Green Peach Aphid, Diamondback Moth larva, Harlequin Bug, Imported Cabbageworm	1 to 1 1/2 gal./acre	Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Malabar Spinach	Malabar Spinach Beetle	7 1/2 gal./100 gals. water or 5 gal./acre	Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Medicinal Herb (7)	Aphid, Cabbage Looper, Imported Cabbageworm	1 gal./acre	Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Onion (2), Parsley (2), and other leafy greens	Aphid, Cabbage Looper, Imported Cabbageworm, Flea Beetle, Green Stem Borer, Turnip Root Miner, Turnip Root Fly	7 1/2 to 15 gal./acre	Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.
Peach (2), Plum (2), and other stone fruits	Peach Tree Borer, Cherry Aphid, Eye Spotted Bud Moth, Pear Tree Leafhopper, Phlox M.W. Chalcid	7 1/2 to 15 gal./acre or 7 1/2 to 15 gal./acre	Do not exceed 2 applications per season. Do not use on food 2 applications during the fruiting period.

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(Continued from previous page)	Lower Peach Leaf Miner	1 qt/1000 gals. water	Do not feed cull fruit to animals or allow livestock to graze treated orchards.
	Peach Tree Saw Fly Larva Lower Peach Leaf Miner	1/2 to 1/4 qt/1000 gals. water or 2% to 3% oil/acre	
Pears (7)	Common Saw Bug	Grasshopper 1/2 qt/1000 gals. water, 200 to 400 gals. water/acre applied to orchard floor and ground around trees prior to bloom.	Do not feed cull fruit to animals or allow livestock to graze treated orchards.
	Pear Saw Fly	Felder Treatment 1/2 qt/1000 gals. water or 2% to 3% oil/acre 1/2 qt/1000 gals. water or 2% to 3% oil/acre	Do not apply more than once per season. Do not apply more than once per season.
	Pear Leaf Miner	1/2 to 1/4 qt/1000 gals. water applied as a post-harvest or dormant treatment.	
	Pear Psylla	Use 3% oil in oil-soluble carrier for 1 acre (maximum of 10 gals/acre for annual, 60 gals/acre for semi-permanent, 300 gals/acre for olive). For dormant control, concentrate pear psylla oil 1 qt/1000 gals. water or to spread 300 gals spray per acre.	Apply when adults are first observed. Apply when nymphs are small and repeat in 7 to 10 days if necessary. Do not exceed 2 applications during the growing season.
NOTE: Ground application is preferred. Aerial application does not require satisfactory control and should be used only if impossible to apply by ground.			
Pears (Continued) (8)	Pear Aphid, Pear Weevil	1/2 to 1/4 qt/acre	Do not exceed 2 applications during the growing period. Use only oil spray to be harvested by machines. Do not feed treated trees to livestock or allow to graze in treated fields.
Pears (9) (Southern Field)	Common Pear Psylla	1% to 2% oil/acre	Make 2 applications or 5 day intervals beginning when first seen on 1/2 inch long. Do not feed treated through to livestock or allow to graze in treated fields.
Pears (10)	Black Pear Aphid	1 qt/1000 gals. water	Do not apply after bloom open. Do not graze livestock on orchard crops or allow to graze in treated areas.
Pears (11)	Green Peach Aphid, Pear Bark Beetle, Pear Psylla, Pear Saw Fly, Pear Weevil	1/2 to 1/4 qt/acre	1 day if maximum of 1/2 qt/acre is applied.
Pears (Maximum, Jack Red, South White)	Common Pear Psylla	1 qt/1000 gals. water	Apply in mid-June and again if necessary in late fall. Thoroughly wet bark and main stem especially where branches join main stem.
Pears (12) (From market any date)	European Pear Saw Fly	2% oil/acre	Do not apply more than 4 times per season. Make applications at 7 to 10 day intervals if necessary throughout during the 40 day bloom period. Do not feed treated forage or livestock by-products to livestock.
Pears (7) Pears (7)	Lower Peach Leaf Miner	1 qt/1000 gals. water or 2% to 3% oil/acre	Pears spray thoroughly to wet trunk and stem branches.
	Peach Tree Saw Fly Larva, Peach Tree Saw Fly, Leaf Curl, Pear Aphid, Pear Weevil, Pear Saw Fly, Pear Psylla	1 qt/1000 gals. water or 2% to 3% oil/acre	Spray thoroughly to cover all bark areas both ground or mulched fields.
	Pear Tree Leafhopper (Pears only-Pacific W or Ohio)	1% oil/acre	Apply during pre-bloom stage. Do not feed cull fruit to animals nor allow livestock to graze treated orchards.
Pears (13)	Aphid, Arthropod, Cuckoo Peach Beetle, Green Saw Fly, Leaf Miner, Pear Aphid, Pear Weevil, Pear Saw Fly, Pear Psylla, Pear Leafhopper, Pear Bark Beetle, Pear Saw Fly, Pear Weevil, Pear Aphid, Pear Weevil, Pear Saw Fly, Pear Psylla	1/2 to 1/4 qt/acre	
	European Pear Saw Fly, Pear Aphid	1 to 1 1/2 qt/acre	
	Pear Saw Fly	1% oil/acre	
	European Pear Beetle	1/2 qt/acre	

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Pumpkin (8)	Aphid, Cucumber Beetle, Spotted Vine Weevil, Spotted Pear Beetle	1/2 to 1/4 qt/acre	For vine-borer control, apply weekly to lower back stems and when beginning when no longer. Do not apply within one day of harvest.
Safflower	Green Peach Aphid	1 1/2 qt/acre	Do not apply after flower buds open.
Shade Trees (except Boxwood, Shrub (ornamental only))	Aphid	1/2 to 1/4 qt/acre	
Sorghum (21)	Crown Weevil, Green Peach Aphid	1 qt/acre	Do not exceed 1 application.
Soybean (22) (with only)	Spotted Green Leafhopper, Soybean Aphid	1/2 to 1/4 qt/acre	Apply in late to early when aphids are present but before pods are formed.
Strawberries (4)	Cuckoo Peach Beetle	1/2 to 1/4 qt/acre, water 400 gals. spray per acre	Do not apply at intervals of less than 25 days when fruit is present.
	Mountain Spittlebug, Strawberry Aphid, Terrestrial Pear Bug	1 1/2 qt/acre or 200 gals. water	Do not apply at intervals of less than 15 days or more than twice during any 25 day period when fruit is present.
Sugar Beets (23)	Green Peach Aphid	1/2 to 1/4 qt/acre	Do not feed treated tops to livestock.
	Mountain Spittlebug	1/2 qt/acre	
	Sugar Beet Weevil	1 to 1 1/2 qt/acre	
Sweeteners (24)	Safflower Aphid	1 1/2 qt/acre	Do not exceed 3 applications. Make first application at onset of bloom and make 2 more applications at 4 to 7 day intervals. Do not feed treated forage to livestock.
Sweet Corn (25) (from vegetable any date)	Corn Leaf Aphid	1 1/2 qt/acre	Apply at 2 to 3 day intervals beginning when silks first appear and continuing until silks begin to dry. Do not exceed 5 applications. Do not apply to sweet corn to be processed. Do not feed treated forage or silage to livestock or allow livestock to graze in treated rows.
	Corn Weevil	1 qt/acre	
Sweet Potatoes (26)	Sweet Potato Flea Beetle	1/2 qt/acre	Begin application shortly after transplanting or as soon as flea beetles appear.
	Beetled Cucumber Beetle, Lesser Weevil or nematode, and for use in South Central States only	1 1/2 to 2% oil/acre broadcast or 1/2 to 1 1/2 qt/acre at a 16 inch band over the row (40 or 50 gals)	Apply at the end of a depth of approximately 3 inches making a single treatment or up to 2 per year. Do not feed treated potatoes to livestock.
Tansy (Ornamental Only)	Tansy Bud Moth	1/2 to 1/4 qt/acre	Apply 3 to 5 applications beginning in mid-June. Thorough treatment of foliage, top, and back is essential.
	Black Vine Weevil	1 1/2 qt/1000 gals.	Spray thoroughly and dress soil under plants. Apply when beetles first appear. Repeat in 14 days.
Tartary (8)	Pear Beetle, Pear Psylla, Pear Aphid, Cabbage Looper	Field: 1/2 to 1 1/2 qt/acre broadcast, 1/2 to 1 1/2 qt/acre and apply 6 gals water/100 sq. yds.	
	Green Saw Fly Larva	1/2 to 1/4 qt/acre, water dress plant bed with 1 gal. 50 cycle oil.	
	Saw Fly	Use field application of 1 1/2 to 2 qt/1000 gals. water.	
Tartary (11) Field and Greenhouse	Brown Beetle, Colorado Potato Beetle, Pear Beetle, Green Peach Aphid	1/2 qt/acre	
	Tomato Root Weevil, Tomato Pinworm, Yellow Striped Armyworm	1 1/2 qt/acre	
	Saw Fly	1 to 1 1/2 qt/acre	
	Cabbage Looper	1 qt/acre	
	Whitefly, Pear Psylla	1/2 to 1 1/2 qt/acre	
Walrus	Walrus Aphid	2 to 5 pints/acre	Do not apply over 1000 gal water. Do not graze livestock in treated fields.

**NOTICE ON CONDITIONS OF SALE**

Our recommendations for use of this product are based upon facts believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility including injury or damage, resulting from its misuse or such or in combination with other material or methods.

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