

United States Environmental Protection Agency  
Washington, D.C. 20460

OCT 13 1993

Office of  
Prevention, Pesticides and  
Toxic Substances

Bethany G. Hulcy  
GOWAN COMPANY  
BOX 5569  
YUMA AZ 85366

Subject: Label Amendment Submission of 06/09/93  
in Compliance with WPS Labeling Requirements  
EPA Reg No. 10163-148  
GOWAN AZINPHOS-M 50 W

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is accepted subject to the comments listed below.

Based on your certification, the Agency has accepted only those changes to your labeling which are necessary to comply with FR Notices 93-7 and 93-11, which reflect the WPS labeling requirements of 40 CFR part 156, subpart K. Any other labeling changes submitted in connection with this amendment application and not directly related to compliance with PR Notice 93-7 or 93-11 have neither been reviewed nor accepted by the Agency. If you wish to make any such changes, you must submit a separate amendment application proposing them. If your product registration is currently suspended, acceptance of this labeling amendment does not affect the suspension in any way.

A copy of your proposed labeling stamped "Accepted with comments" is attached. Make any required changes described in the attached and send three copies of final labeling as soon as it is available to:

Document Processing Desk (FIN-LABEL)

GOMAN COMPANY  
GOMAN AZINPHOS-M 50 W  
10163-148 06/09/93  
Original Submission

Add the following engineering control statement to your label: "The [closed systems or enclosed cabs] must be used 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."  
Your label contains redundant WPS phrases that should be eliminated. Please see the attached comments.

**RESTRICTED USE PESTICIDE**  
Due To Acute Toxicity  
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

# GOWAN AZINPHOS-M 50 W

<b>ACTIVE INGREDIENT:</b>	
O,O-dimethyl S-((4-oxo-1,2,3-benzotriazin-3 (4-H)-yl) methyl) phosphorodithioate.....	50.0%
<b>INERT INGREDIENTS</b> .....	<u>50.0%</u>
<b>TOTAL 100.0%</b>	

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

OCT 13 1993

## KEEP OUT OF REACH OF CHILDREN

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 10163-148



### 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

#### Organophosphate Insecticide

- IF SWALLOWED-** Call of physician or Poison Control Center immediately. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Repeat until vomit fluid is clear. Do not give anything by mouth to an unconscious person.
- IF INHALED-** Remove victim to fresh air. Apply artificial respiration if indicated.
- IF IN EYES-** Flush eyes with plenty of clear water for at least 15 minutes, and get medical attention if irritation persists.
- IF ON SKIN-** Remove contaminated clothing and wash skin immediately with soap and warm water.

#### NOTE TO PHYSICIAN

**ANTIDOTE-** Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. 2-PAM is also antidotal, and may be administered in conduction with atropine. Azinphos-methyl inhibits cholinesterase, resulting in stimulation of the central nervous system, the parasympathetic nervous system and the somatic motor nerves. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

Net Weight 5 Pounds  
Contains 5 one pound water soluble packages

EPA Reg. No. 10163-148  
EPA Est. No. 10163-AZ-1



Gowan Company  
P.O. Box 5569  
Yuma, AZ 85366 4569

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

Fatal if swallowed, inhaled or absorbed through the skin. Do not breathe vapor, dust or spray mist. Do not get in eyes, on skin, or on clothing. Keep out of reach of children and domestic animals. Do not contaminate feed or foodstuffs. Keep all unprotected persons, children, livestock, and pets away from treated areas or where there is a danger of drift. Do not rub eyes or mouth with hands. If you feel sick in any way STOP work and get help right away. See First Aid section of the label. For questions regarding further treatment, or information about the product, call the National Pesticide Telecommunications Network at 1-800-858-7378.

**PERSONAL PROTECTIVE CLOTHING (PPE)**

**Applicators and other handlers (other than mixers and loaders) must wear:**

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

**Mixers and Loaders must wear:**

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear
- Chemical-resistant apron when mixing or loading
- For exposures in enclosed areas- 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)
- For exposures outdoors- Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

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.

**Engineering controls statements:** When handlers use closed systems, enclosed cabs, or aircraft 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.

During aerial application, human flaggers are prohibited unless in totally enclosed vehicle.

**Symptoms of Poisoning:** A sense of "tightness" in the chest. Sweating. Contracted pupils. Stomach pains. Vomiting and diarrhea. **Treatment:** In case of poisoning, call a physician immediately. (See STATEMENT OF PRACTICAL TREATMENT section also.)

**USER SAFETY RECOMMENDATIONS**

User 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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to fish and wildlife. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water by cleaning of equipment or disposal of wastes. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.

This product is highly toxic to bees exposed to direct treatment or residues on crops or blooming weeds. Do not apply this product or allow it to drift to crops or weeds when bees are actively visiting the treatment area. Time applications to provide the maximum possible interval between treatment and the next period of bee activity. Protective information may be obtained from your Cooperative Agricultural Extension Service.

**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 intervals. 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). Each 48-hour REI is increased to 72 hours in outdoor areas where average rainfall is less than 25 inches a year. Exception: If the product is 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
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure

**STORAGE AND DISPOSAL**

Store in a cool, dry place below 120° F. Do not store next to herbicides.

**DO NOT CONTAMINATE** water, food or feed by storage or disposal. Open dumping is prohibited.

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

Gowan Azinphos-M 50 W  
EPA Reg. No. 10163-146

### DIRECTIONS FOR USE

GOWAN COMPANY  
P.O. BOX 5569  
YUMA, AZ 85366

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

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#### SPRAYING

Prepare water dilutions appropriate for type of equipment used as described in DILUTION DIRECTIONS. When applying, work to windward.

Complete coverage and thorough application are essential for most effective results. Schedule applications in accordance with local conditions. Consult your State Agricultural Experiment Station or Extension Service for specific use information in your area.

#### DILUTION DIRECTIONS

The rate required for thorough, uniform coverage varies with plant growth at time of application. Except as specified for certain uses, the following rates are therefore intended to cover a broad range of applications.

##### Dilute Application

Field and Row Crops: Apply specified rate in 20 to 75 gallons of water per acre.

Trees and Vines: Apply specified rate in 100 to 800 gallons of water per acre. For citrus, use up to 2,000 gallons of water per acre.

##### Concentrate Application

Field and Row Crops: Apply specified rate in not less than 5 gallons of water per acre.

Trees and Vines: Apply specified rate in 20 to 100 gallons of water per acre.

Special concentrate equipment is required for these applications.

### Air Application

Field and Row Crops: Apply specified rate in a minimum of 3 gallons of water per acre.

Trees and Vines: Apply specified rate in a minimum of 10 gallons of water per acre. When tank mixing with other products, a premix is suggested to achieve a uniform suspension.

Unless specifically prohibited under a crop recommendation, application to all crops is allowed using ground or air equipment. Follow DILUTION DIRECTIONS above.

### ROTATIONAL CROPS

Do not plant root crops other than those with registered azinphos-methyl uses in azinphos-methyl treated soil sooner than 6 months after last application. Do not plant any other crop other than those with registered azinphos-methyl uses in treated soil sooner than 30 days after last application.

### GENERAL USE

#### PRECAUTIONS AND RESTRICTIONS

Do not use for any food or forage crop not listed on this labeling. Use only according to label directions. Application at rates above those shown may result in illegal crop residues.

**COMPATIBILITY:** Gowan Azinphos-M 50 W is compatible with many registered pesticides and liquid fertilizers. Do not combine with any products unless previous use of the mixture has proven physically compatible and safe to plants. When mixing Gowan Azinphos-M 50 W with any other product, add wettable powders or dry flowable formulations first and then add liquid products. If there is any separation, we recommend that combination not be used.

Combination should be kept agitated and should be applied immediately. Do not allow combination to sit for prolonged periods in the chemical supply tank or irrigation lines.

Gowan Azinphos-M 50 W is compatible with dormant and summer oils; these may be added to sprays in accordance with local recommendations.

Do not graze livestock in treated orchards or groves for 21 days after treatment. Where specific grazing restrictions are given for a crop listing, follow these specific directions. Do not treat food crops grown in the greenhouse.

### RECOMMENDATIONS FIELD CROPS

**ALFALFA, CLOVER, BIRDSFOOT TREFOIL (East of the Mississippi River only)** REI: 48 hours  
Leafhoppers: Use 1/2 to 1 lb. per acre. Alfalfa weevil, Egyptian alfalfa weevil: Use 3/4 to 1 1/2 lbs. per acre. Alfalfa plant bug, fleahopper, grasshoppers, lygus bugs, spittlebugs: Use 1 to 1 1/2 lbs. per acre. Apply specified dosage per acre by air or ground equipment. Use at least 10 gallons of water per acre with ground equipment and at least 1 gallon of water per acre for aerial application. It may be necessary to use 20 to 25 gallons of water per acre on heavy growth for control of alfalfa weevil or Egyptian alfalfa weevil with ground equipment. For application by irrigation systems, apply the specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label. Only one application per cutting may be made regardless of rate, formulation, or method of application used. Do not apply within 14 days of harvest at rates from 1/2 to 3/4 lb. per acre, or within 16 days of harvest at rates of 1 lb. per acre. Do not apply within 21 days of harvest at rates above 1 lb. per acre.



**BARLEY, OATS, RYE, WHEAT** REI 48 hours

Cereal leaf beetle: Use 3/4 to 1 lb. per acre in sufficient water for complete coverage. Do not apply more than once per season. Do not harvest for food, feed, forage, or graze within 30 days of treatment.

**COTTON** REI 48 hours

Bollweevil: Use 1/4 to 1/2 lb. per acre. Pink bollworm: Use 1 to 2 lbs. per acre. Brown cotton leafworm, cotton fleahopper, cotton leafworm, thrips: Use 1/2 lb. per acre. Rapid plant bug, tarnished plant bug: Use 1/2 to 1 lb. per acre. Apply by ground or air equipment in sufficient water for complete coverage, but not less than 5 gallons of water per acre. For early season control of pink bollworm, use 1 to 1 1/2 lbs., and for mid- to late-season applications, use 1 1/2 to 2 lbs. Repeat as necessary. Do not apply within 1 day of picking. Cotton receiving late-season applications should not be pastured.

**SOYBEANS** REI 48 hours

Aphids\*, bean leaf beetle, green cloverworm, leafhoppers, leaf miners, leaf rollers, stink bugs, velvet bean caterpillar: Use 3/4 to 1 lb. per acre. Mexican bean beetle: Use 1 to 1 1/2 lbs. per acre. Apply in sufficient water for complete coverage. Repeat as necessary. Do not apply within 45 days of harvest. Do not graze or feed treated vines to livestock.

**TOBACCO** REI 48 hours

Aphids\*, grasshoppers, tobacco hornworm, tobacco flea beetle: Use 1 to 1 1/2 lbs. per acre. Tobacco budworm: Use 1 1/2 lbs. per acre. Apply in sufficient water for complete coverage. Treat for hornworms as soon as egg masses or worms are first found. Repeat as necessary. Do not apply within 6 days of harvest. Prime before treating.

**FRUIT**

**NOTE:** When treating fruit during the bloom period, it is recommended that bee keepers be warned well in advance to remove hives a safe distance from orchards to be treated.

**APPLES, CRABAPPLES, PEARS, QUINCES** REI 48 hours

Aphids\*, apple maggot, codling moth, European apple sawfly, eye-spotted bud moth, Forbes scale, fruittree leaf roller, green fruitworm\*, leafhoppers\*, mealybugs\*, orange tortrix, Oriental fruit moth, pear midge, pear psylla, plum curculio, Putnam scale, red-banded leaf roller, San Jose scale\*, stink bug, tarnished plant bug\*: Use 1 1/2 to 3 lbs. per acre (or Northeast and North Central states: 1/2 to 1 lb. per 100 gallons based on 300 gallons per acre.) Up to 12 lbs. may be applied\*per crop season. Allow at least 7 days between applications and 7 days between last application and harvest.

\*per acre...

**FOR AERIAL APPLICATIONS:** Use 1 1/2 to 3 lbs. in a minimum of 3 gallons of water per acre for the Northwestern states and a minimum of 10 gallons of water per acre in other areas. Apply by fixed wing or helicopter aircraft. Where aphids are a problem, aerial applications may not provide satisfactory control. Up to 12 pounds of Gowan Azinphos-M 50 W may be applied per acre per crop season. Do not apply within 7 days of harvest and allow 7 days between applications.

Gowan Azinphos-M 50 W is compatible with dormant and summer oils, which may be added to apple and pear sprays in accordance with local recommendations.

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**APRICOTS, NECTARINES, PEACHES (East of the Rocky Mountains) REI 48 hours**  
 Aphids\*, cottony peach scale, European fruit lecanium scale, Forbes scale, lesser peach tree borer, oriental fruit moth, peach twig borer, peach tree borer, Platynota flavidana leaf roller, plum curculio, red-banded leaf roller, San Jose scale\*, stink bug, tarnished plant bug\*, terrapin scale, thrips, walnut scale, white peach scale: Use 1 3/4 to 2 1/4 lbs. per acre (or 1/2 to 3/4 lb. per 100 gallons based on 300 gallons of water per acre.) Apply specified dosage per acre as a full coverage spray. Allow at least 14 days between applications. A total of 6 3/4 lbs. per acre per crop season may be applied to nectarines and a total of 9 lbs. per acre per crop season may be applied to apricots and peaches. Allow at least 21 days between last application and harvest. For control of peach tree borer, apply 2 or 3 sprays to trunk from ground to scaffold limbs, timed with moth flight. For control of scale, apply when crawlers are present.

Gowan Azinphos-M 50 W is compatible with dormant and summer oils which may be added to peach sprays in accordance with local recommendations.

**APRICOTS, NECTARINES, PEACHES (West of the Rocky Mountains) REI 48 hours**  
 Lesser peach tree borer, oriental fruit moth, peach twig borer, peach tree borer, Platynota flavidana leaf roller, plum curculio, redbanded leaf roller, stink bug, thrips, tarnished plant bug: Use 3 to 4 lbs. per acre. Allow at least 14 days between applications. A total of 6 3/4 lbs. per acre per crop season may be applied to nectarines and a total of 9 lbs. per acre per crop season may be applied to apricots and peaches. Allow at least 21 days between last application and harvest. For control of peach tree borer, apply 2 or 3 sprays to trunk from ground to scaffold limbs, timed with moth flight.

Gowan Azinphos-M 50 W is compatible with dormant and summer oils which may be added to peach sprays in accordance with local recommendations.

**CHERRIES REI 48 hours**

(1-1 1/2) Eye-spotted bud moth, Forbes scale, fruit flies, fruittree leaf roller, lesser peach tree borer, plum curculio, San Jose scale\*, cherry leaf miner, mineola moth: Use 1 1/2 lbs. per acre as a full coverage spray (or Northeast and North Central states: 1/2 pound per 100 gallons based on 300 gallons per acre.) Up to 6 lbs. per acre per crop season may be applied. Allow at least 14 days between applications and 15 days between last application and harvest. In California, apply post-harvest only.

**BLACKBERRIES, BOYSENBERRIES, LOGANBERRIES, RASPBERRIES REI 48 hours**

Leafhoppers, leaf rollers: Use 1/2 lb. per acre. Leaf miners: Use 5/8 lb. per acre. Aphids\*: Use 5/8 to 1 lb. per acre. Obscure root weevil: Use 1 lb. per acre. Apply to foliage using sufficient water for good coverage. Do not apply within 14 days of harvest or more than twice per season.

Obscure root weevil: Use 1 lb. per acre. Raspberry crown (root) borer: Use 2 to 4 lbs. per acre. For root weevil and borer control prior to harvest, apply dosage to lower portion of canes and to the soil beneath the plants using sufficient water to cover. Do not apply more than twice per season. Do not apply within 3 days of harvest at rates up to 2 pounds per acre. Rates above 2 lb. per acre should only be applied before fruit set or after crop is harvested.

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**BLUEBERRIES (East of the Rockies) REI 48 hours**

Blueberry maggot, fruitworms, lecanium scale, plum curculio: Use 1 to 1 1/2 lbs. per acre. Apply specified dosage with aerial or ground equipment using sufficient water for good coverage. A total of 3 applications may be made per crop season regardless of rate or formulation used. Allow at least 10 days between applications and at least 7 days between last application and harvest.

**CITRUS FRUITS REI 7 days**

Aphids\*, black scale, brown soft scale, chaff scale, citricola scale, citrus thrips, citrus mealybug, citrus rootweevil complex, cottony-cushion scale, European brown snail, Florida red scale, fruit tree leaf roller, Fuller rose beetle, Glover scale, orange tortrix, snow scale, purple scale, western tussock moth, whiteflies: Use 4 to 6 lbs. per acre. California red scale, yellow scale: Apply 6 lbs. per acre. Apply specified dosage as a full coverage spray. A single application per year may be applied up to within 7 days of harvest. Where 2 applications are required, allow at least 28 days between the second application and harvest. A total of 2 applications may be applied per fruit year regardless of rate or formulation used.

**CRANBERRIES REI 48 hours**

Cranberry fruitworm, Sparganothis sulfureana, tipworm: Use 1 to 2 lbs. per acre. Fireworms: Use 2 lbs. per acre. Apply specified dosage by air or ground equipment using sufficient water for good coverage. For application by irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label. A total of 3 applications may be made per crop season regardless of rate or formulation used. Allow at least 14 days between applications and at least 21 days between last application and harvest.

**GRAPES REI 48 hours**

Grape berry moth, fleabeetles, grape cane girdlers, grape mealybug, leafhoppers\*, redbanded leaf roller, thrips, grape leaf skeletonizer: Use 1 1/2 to 2 lbs. per acre. Apply specified dosage per acre as a full coverage spray. A total of 3 applications may be made per crop season regardless of rate or formulation used. Allow at least 14 days between applications. Minimum dosage specified may be applied up to harvest. With higher rates, allow at least 28 days between last application and harvest.

**PLUMS, PRUNES (East of the Rockies) REI 48 hours**

Aphids\*, codling moth, eye-spotted bud moth, Forbes scale, fruittree leaf roller, lesser peach tree borer, orange tortrix, peach tree borer, peach twig borer, plum curculio, redbanded leaf roller, San Jose scale\*, stink bug\*, tarnished plant bug\*, tussock moth: Use 1 3/4 to 2 1/2 lbs. per acre (or 1/2 to 3/4 lb. per 100 gallons based on 300 gallons per acre.) American plum borer: Use 3 lbs. per acre. Apply as a full coverage spray. A total of 6 3/4 lbs. may be applied per acre per crop season. Allow at least 10 days between applications. Allow at least 15 days between last application and harvest. For control of peach tree borer, apply 2 or 3 sprays to trunk from ground to scaffold limbs, timed with moth flight. For control of scale, apply when crawlers are present. Gowan Azinphos-M 50 W is compatible with dormant and summer oils which may be added to prune sprays in accordance with local customs.

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**PLUMS, PRUNES (West of the Rockies) REI 48 hours**

Codling moth, eye-spotted bud moth, fruittree leafroller, lesser peach tree borer, orange tortrix, peach tree borer, peach twig borer, plum curculio, redbanded leafroller, stink bug, tarnished plant bug, tussock moth: Use 2 to 4 lbs. per acre. American plum borer: Use 3 to 4 lbs. per acre. Allow at least 10 days between applications and at least 15 days between last application and harvest. A total of 6 3/4 lbs. per acre per crop season may be applied to plums and prunes. For control of peach tree borer, apply 2 or 3 sprays to trunk from ground to scaffold limbs, timed with moth flight.

**STRAWBERRIES REI 48 hours**

Aphids\*, meadow spittlebug, oblique-banded leaf roller, obscure root weevil, omnivorous leaf tier, pea leaf weevil, small black (grass) weevil, strawberry clipper, strawberry leaf roller, whitefly: Use 1 lb. per acre. Apply specified dosage as a full coverage spray using sufficient water for good coverage. For application by irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label. A total of 4 applications may be made per crop season regardless of rate or formulation used. Allow at least 5 days between applications and at least 5 days between last application and harvest.

**NUTS****ALMONDS REI 48 hours**

Peach twig borer, navel orangeworm: Use 3 to 4 lbs. per acre. Apply specified dosage by concentrate sprayer or as a full coverage spray, using up to 400 gallons of finished spray per acre. If conditions dictate an aerial spray, apply specified dosage by aircraft in not less than 20 gallons of water per acre. Do not apply more than one dormant spray of 3 to 4 lbs. per acre per season. Make dormant treatment no later than January 1. Allow at least 120 days between the dormant spray and a first post-bloom spray of 3 to 4 lbs. per acre. Then, allow at least 28 days for either a subsequent spray of 3 to 4 lbs. per acre or else the first spray of a split application as recommended below:

**Split Application Spray Schedules**

#1: Apply 2 lbs. per acre at the onset of hullsplit. Follow 5 to 10 days later by a second 2 lb. treatment. Both applications must be made to achieve control.

OR

#2: Apply 4 lbs. per acre at the onset of hullsplit to every other row, followed 5 to 10 days later by a 4 lb. per acre spray to the alternate rows.

Do not apply more than a total of 4 lbs. of finished product (2# ai) per acre when using these split application schedule.

Note: To determine the onset of hullsplit, monitor nuts in the top of the canopy. Coverage is critical in the suture area. If splitting applications, be sure to apply both of the recommended treatments in the selected spray schedule. Do not make any application sooner than 28 days before harvest. Do not graze livestock in treated orchards for 21 days after treatment.

**FILBERTS (Pacific Northwest Only) REI 48 hours**

Apple mealybug, filbert worm, filbert aphid, filbert leaf roller: Use 3 to 4 lbs. per acre. Apply specified dosage as a full coverage spray. A total of 3

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applications may be made per crop season regardless of rate or formulation used. Allow at least 14 days between applications and at least 30 days between last application and harvest. Do not graze livestock in treated groves for 21 days after treatment. 130720

**PECANS** REI 48 hours

Aphids\*, fall webworm, hickory shuckworm, leaf miners, May beetles, pecan casebearer, southern green stink bug, spittlebugs, twig girdlers, walnut caterpillars: Use 3 to 4 lbs. per acre. Apply specified dosage as a full coverage spray. A total of 3 applications may be made per crop season regardless of rate or formulation used. Allow at least 7 days between applications. Do not apply after shuck split. Do not graze livestock in treated groves for 21 days after treatment.

**WALNUTS** REI 48 hours

Codling moth, filbert worm, navel orangeworm, peach twig borer walnut husk fly, red-humped caterpillar: Use 2 to 4 lbs. per acre. Apply specified dosage as a full coverage spray. Do not apply after husks split. A split application may be necessary for thorough coverage. If a split application is used, apply 2 lbs. per acre using ground equipment to be followed no later than 5 days after by a ground or aerial treatment of 2 lbs. per acre. Allow at least 14 days between the first and the split applications. Do not exceed a total of 12 lbs. Gowan Azinphos-M 50 W per acre per crop season. Do not graze livestock in treated groves for 21 days after treatment.

**VEGETABLES**

**ARTICHOKES** REI 48 hours

Plume moth: Use 3 lbs. per acre in sufficient water for complete coverage. For application by irrigation systems, apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label. A total of 3 applications may be made per crop season regardless of rate, formulation, or method of application used. Allow at least 14 days between applications and at least 30 days between last application and harvest. Do not feed or ensile treated forage.

**BEANS (DRY & SNAP)** REI 48 hours

Leaf rollers: Use 1/2 to 1 lb. per acre. Aphids\*, bean leafbeetle, green cloverworm, leafhoppers, leaf miners, stink bugs, velvet bean caterpillar: Use 3/4 to 1 lb. per acre. Mexican bean beetle, spotted cucumber beetle, striped cucumber beetle, tarnished plant bug, western-striped cucumber beetle: Use 1 lb. per acre. Apply specified dosage in sufficient water for thorough coverage. Do not apply to snap beans within 7 days of harvest nor to dry beans within 30 days of harvest. Do not exceed 4 applications. Do not feed or ensile treated forage.

**BLACKEYED PEAS (SOUTHERN PEAS, CROWDER PEAS)** REI 48 hours

Corn earworm, cowpea curculio: Use 1 1/2 to 2 lbs. per acre. Leaf miners, stink bugs: Use 3/4 to 1 lb. per acre. Apply in sufficient water for complete coverage. Do not apply more than 4 times per season. Do not apply within 7 days of harvest. Do not use treated vines for feed or forage nor pasture treated areas.

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**BROCCOLI, BRUSSELS SPROUTS, CABBAGE (INCLUDES TIGHT HEADING VARIETIES OF CHINESE CABBAGE), CAULIFLOWER** REI 48 hours

Aphids\*, cabbage looper, diamondback moth, imported cabbageworm: Use 1 to 1 1/2 lbs. per acre. Apply specified dosage in sufficient water for complete coverage. Do not apply within 7 days of harvest for brussels sprouts, 15 days of harvest for broccoli and cauliflower, and 21 days of harvest for cabbage. Do not exceed more than 3 applications per season. Cabbage maggot: Use 1/4 to 3/8 lbs. per acre. Mix specified dosage in 50 gallons of water. Apply 4 to 6 ounces of this emulsion per plant at or immediately after transplanting.

Cabbage maggot (direct seeded fields in California only): Use 1 1/2 lbs. per acre. Apply specified dosage in sufficient water for uniform distribution. Mix in upper 2 inches of soil prior to seeding or spray in the seed row at planting time. Usually 2-3 additional sprays are necessary during the growing season, depending on time of year and maggot populations. Do not apply within 21 days of harvest. Do not exceed more than 3 applications per season.

Cabbage maggot (transplant fields in California only): Use 1 1/2 lbs. in 300 to 400 gallons of water per acre as a soil drench in rows when damage first appears. Additional applications may be necessary. Do not apply within 21 days of harvest. Do not exceed more than 3 applications per season.

**CELERY** REI 48 hours

Aphids\*, leaf miners, leafhoppers, spittlebug, tarnished plant bug\*: Use 1 lb. in 100 gallons of water as a full coverage\*\* using not more than 200 gallons of finished spray per acre. Repeat as necessary. Do not apply within 14 days of harvest. Do not exceed more than 3 applications per season.

**CUCUMBERS** REI 48 hours

Spotted cucumber beetles, striped cucumber beetle, western-striped cucumber beetle: Apply 1 lb. per acre in sufficient water for complete coverage. Do not apply within 1 day of harvest. Allow at least 7 days between applications. For application by irrigation systems, apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label. A total of 3 applications may be made per crop season regardless of rate, formulation or method of application used.

**EGGPLANT** REI 48 hours

Leaf miners: Use 3/4 to 1 lb. per acre. European corn borer, flea beetles: Use 1 lb. per acre. Apply in sufficient water for complete coverage. Repeat as necessary but do not exceed 3 applications per crop season regardless of rate, formulation, or method of application used and allow at least 7 days between applications. For application by irrigation systems, apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label. Do not apply after fruit set.

**ONIONS (GREEN AND DRY)** REI 48 hours

Thrips: Use 1 to 1 1/2 lbs. per acre. Apply in sufficient water for complete coverage. For application by irrigation systems, apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label. Do not apply more than 3 times per crop season. Allow at least 7 days between applications for dry bulb onions and at least 10 days between applications for green onions. Do not apply within 28 days of harvest for dry onions nor within 7 days of harvest for green onions.

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**PEPPERS REI 48 hours**

Leaf miners: Use 3/4 to 1 lb. per acre. European corn borers, flea beetles: Use 1 lb. per acre. Apply in sufficient water for thorough coverage. For application by irrigation systems, apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label. A total of 3 applications can be made per crop season. Allow at least 7 days between applications and 7 days between last application and harvest.

**POTATOES REI 48 hours**

Colorado potato beetle\*: Use 3/4 lb. per acre. Banded cucumber beetle, leaf miners: Use 3/4 to 1 lb. per acre. European corn borer, flea beetle, leafhopper, spittlebug, tarnished plant bug: Use 1 to 1 1/2 lbs. per acre. Tuberworm: Use 1 1/8 to 1 1/2 lbs. per acre. Apply in sufficient water for complete coverage. For application by irrigation systems, apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label. A total of 3 applications may be made per crop season regardless of rate, formulation, or application method used. Allow at least 7 days between application and 7 days between last application and harvest.

**SPINACH REI 48 hours**

Aphids\*, leaf miners, mites\*: Use 3/4 to 1 lb. per acre in sufficient water for complete coverage. Do not exceed more than 3 applications per season nor apply within 14 days of harvest.

**TOMATOES REI 48 hours**

Colorado potato beetle\*: Use 3/4 lb. per acre. Banded cucumber beetle, drosophila, green stink bug, leaf miners, whitefly: Use 3/4 to 1 lb. per acre. Aphids\*, European corn borer, flea beetles, grasshoppers, leafhoppers, thrips: Use 1 to 1 1/2 lbs. per acre. Tuberworm: Use 1 1/8 to 1 1/2 lbs. per acre. Corn earworm, fruitworm, pinworm, yellow-striped armyworm, hornworm: Use 1 1/2 to 3 lbs. per acre. Apply in sufficient water for complete coverage. A total of 4 applications may be made per crop season regardless of rate, formulation, or method of application used. Allow at least 7 days between applications. The high rates should be used where heavy infestations of late instar lepidopterous larvae (large worms) and pinworms are present. Rates of 1 1/2 lbs. per acre or less may be applied up to day of harvest. Rates above 1 1/2 lbs. per acre require an interval of 14 days between last application and harvest. For application by irrigation systems, apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.

**MELONS (HONEYDEW MELONS, MUSKMELON (CANTALOUPE), WATERMELONS, AND OTHER MELONS) REI 48**

Leafhoppers, leaf miners: Use 3/4 to 1 lb. per acre. Rindworms, spotted cucumber beetle, striped cucumber beetle, western-striped cucumber beetle: Use 1 lb. per acre. Apply in sufficient water for complete coverage. A total of 3 applications may be made per crop season. Allow at least 5 days between applications and at least 7 days between last application and harvest. For application by irrigation systems, apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.

**ORNAMENTALS****SOUTHERN PINE SEED ORCHARDS REI 48 hours**

Coneworm, seedworm: Use 4 lbs. per 100 gallons of water (.2% dilution) as a full coverage spray.\*\* Use 2.25 lbs. per 10 gallons of water (1% dilution) for low volume sprayers. Apply first application within 30 days following conelet

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closure, followed by 3 to 5 application (at least 30 days apart). Apply approximately 5 to 10 gallons of the .2% dilution with high volume sprayers or approximately 1 to 2 gallons of the 1% dilution with low volume sprayers per tree. Thorough coverage of cones is necessary for maximum control.

**ORNAMENTALS, NURSERY PLANTS, SHADE TREES** REI 48 hours

Aphids, Cerococcus scale, euonymus scale, juniper scale, lace bugs, leafhoppers, mites, olive scale, oystershell scale, Pulvinaria scale, thrips: Use 3/4 to 1 lb. Brown soft scale, Putnam scale: Use 2 lbs. Black pine leaf scale, European elm scale: Use 1 1/2 to 2 lbs. Apply specified dosage per 100 gallons of water. Spray all foliage surfaces including undersides of leaves for complete coverage. For control of black pine leaf, brown soft, European elm and Putnam scales, use the higher rate. Repeat as necessary. Cone midge, Cone moth: Use 4 to 8 lbs. Apply specified dosage per 100 gallons of water. Time applications to coincide with moth flight when cones are open for pollination. Thorough coverage is necessary for maximum control. Repeat as necessary. European pine shoot moth, Nantucket pine tip moth: Use 3/4 to 1 1/2 lbs. per acre in sufficient water for good coverage. Time applications to coincide with moth flights. NOTE: Injury to Hawthorn or American linden may occur under some conditions. Do not allow children or pets on treated area until material has been washed into soil and treated area is dry.

**CHRISTMAS TREES** REI 48 hours

Scale spp., sawfly spp., European pine shoot moth, eastern pine shoot borer, Nantucket pine tip moth: Use 3/4 to 1 1/2 lbs. per acre in sufficient water to give complete coverage but not less than 1 gallon per acre. Time applications to coincide with susceptible pest development.

\*In some areas, these species may have developed resistance to organophosphate insecticides. Gowan Azinphos-M 50 W used alone may not provide satisfactory control in those areas. Consult your local agricultural advisor or cooperative extension service for recommendations.

\*\*This dosage is calculated for conventional hydraulic type sprayers. When lower volumes of spray are applied per acre with concentrate sprayers, increase the concentration of Gowan Azinphos-M 50 W in the spray mixture in order to apply amount of product per acre equivalent to a full coverage spray.

See DILUTION DIRECTIONS for water dilution guidelines.

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**GENERAL CHEMIGATION INSTRUCTIONS**

Gowan Azinphos-M 50W may be applied through recommended types of irrigation systems to many crops. If application by Chemigation is not listed in the remarks section for a crop, Gowan Azinphos-M 50W may not be applied to that crop through irrigation systems.

Apply this product only through sprinkler, including center pivot, lateral move, side roll, overhead solid set, or low pressure sprinkler irrigation systems. Do not apply this product through any other type of irrigation system.

The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

The system must be calibrated to uniformly apply the rates specified for chemigation application for specific crops. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Do not apply when wind speed favors drift beyond the area intended for treatment.

**REQUIRED SAFETY SYSTEM DEVICES**

The system must contain a functional check valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injections pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

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Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

#### USING WATER FROM PUBLIC WATER SYSTEMS

**DO NOT APPLY GOWAN AZINPHOS-M 50W THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM.** Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Gowan Azinphos-M 50W may be applied through any of the recommended types of irrigation systems which may be supplied by a public water system only if the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements:

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is not a water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

#### POSTING

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

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Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any location affording maximum visibility to the sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

These signs are in addition to any signs posted to comply with the Worker Protection Standards. When mixing with other chemicals, refer to Compatibility section elsewhere on this label.

For application of Gowan Azinphos-M 50W alone, a chemical supply tank is necessary for premixing. For application of Gowan Azinphos-M 50W alone or in combination with liquid fertilizer or other chemicals, constant strong mechanical or hydraulic agitation must be maintained in the chemical supply tank during the entire period of application.

When a chemical supply tank is used, you must determine the required amounts of Gowan Azinphos-M 50W to mix in the tank.

The amount of Gowan Azinphos-M 50W needed equals the number of pounds of Gowan Azinphos-M 50W to be applied per acre multiplied by the number of acres to be chemigated.

The amount of solution needed equals the gallons of solution delivered per hour by the injection pump multiplied by the number of hours chemigation will take place. For example, if you want to apply 2 pounds of product per acre to 130 acres in 20 hours and your injection pump delivers 15 gallons per hour, you need: 2 pounds of Gowan Azinphos-M 50W per acre X 130 acres = 260 pounds of Gowan Azinphos-M 50W. And, you need: 15 gallons per hour X 20 hours = 300 gallons of suspension = 300 gallons of water.

In order to accurately apply pesticides, the chemical injection system must be kept clean; free of chemical or fertilizer residues and sediments. Refer to your owners manual or ask your equipment supplier for cleaning procedure for your injection system.

At the end of the application period, allow time for all lines to flush the pesticide through all nozzles or emitters before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

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### **SPRINKLER IRRIGATION SYSTEMS**

All directions and requirements under the GENERAL DIRECTIONS must be followed for sprinkler irrigations systems.

In addition, the following directions apply to sprinkler irrigation systems:

Do not apply when wind speed favors drift beyond the area intended for treatment.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, pumps, and system safety devices be plugged to prevent chemical contamination of these areas.

#### **Center-Pivot and Automatic-Move Linear Systems**

Inject the specified dosage per acre continuously for one complete revolution or move of the system. Do not use end guns. For a foliar application, the system should be run at maximum speed. For a soil application, the system should be run at a slower speed with application in at least 1/4 inch of water.

#### **Solid Set and Manually Controlled Linear Systems**

For foliar application, injection should be during the last 30 to 60 minutes of regular irrigation period or as a separate 30 to 60 minute application not associated with a regular irrigation. For soil treatment, application should be in at least 1/4 inch of water. Do not use end guns.