



DM 04

10163-80

8/23/99

Page 1 of 10

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

Terre Farrell  
Gowan Company  
P.O. Box 5569  
Yuma, Arizona 85366-5569

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

**AUG 23 1999**

Subject: Gowan Azinphos-M 2 EC  
EPA Registration No. 10163-80  
Amendment dated August 10, 1999  
Label amendments per August 2, 1999 MOA

Dear Ms. Farrell:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable provided that you make the labeling changes indicated below before you release the product for shipment bearing the amended labeling:

1. On the first page of the label the statement "This product must be sold/distributed and used in a dry-coupling mixture/loading system" must be added above the active ingredient heading since it is not in water soluble packets.
2. On page 2 in the Directions for use the last sentence must be changed to read "This product may not be reformulated or used under a state special local need for use on sugarcane, ornamentals, Christmas trees, shade trees or forest trees".
3. On page 3 under the crop "Cotton" the REI must be changed from 48 hours to 4 days.
4. On page 4 under the crop heading "Blackberries, boysenberries, loganberries, raspberries" the REI must be changed to 4 days. Additionally, the PHI must be changed from 3 days to at least 4 days since the PHI can not be less than the REI.
5. On page 5 the REI's must be changed from 48 hours to 4 days for the following crops: Strawberries, (Broccoli, Brussels Sprouts, Cabbage, Cauliflower), Celery, Cucumbers, and Eggplant. The PHI for Cucumbers must be changed to be at least 4 days between last application and harvest.

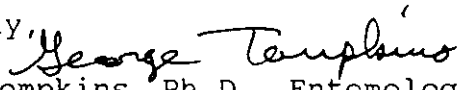
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6. On page 6 the REI's must be changed to 4 days for the following crops: Onions, Potatoes, Tomatoes, Melons, and Southern Pine Seed Orchards. The PHI for Tomatoes must be changed to be 4 days before harvest since the REI is 4 days.

7. On page 6 the label language permits only aerial application to the crop "Southern Pine Seed Orchards". The comments section must be altered so that only the portion of the statements that is marked in yellow on the submitted label is allowed. The portion of the paragraph starting with "Apply first.." ....through... "(at least 30 days apart)" must be deleted.

Submit two copies of your final printed labeling before you release the product for shipment. A stamped copy of the labeling is enclosed for your records.

Sincerely,



George Tompkins, Ph.D., Entomologist  
Insecticide-Rodenticide Branch  
Registration Division (7505C)

39 10

**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 2 EC**

Emulsifiable Insecticide

**ACTIVE INGREDIENT:**

**% BY WT.**

O,O-Dimethyl S-(4-oxo-1,2,3-benzotriazin-3 (4-H-yl) methyl) phosphorodithioate.....

22.2%

**INERT INGREDIENTS.....**

77.8%

**TOTAL 100.0%**

**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**

**Organophosphate Insecticide**

**IF SWALLOWED:** Call a 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 conjunction 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.

**FOR EMERGENCY MEDICAL RESPONSE AND HAZARD COMMUNICATION ONLY, CALL HAZARD INFORMATION SERVICES AT 1(800) 228-5635 EXT. 283.**

**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. 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 this label. For questions regarding further treatment or information about the product, call the National Pesticide Telecommunications Network at 1-800-858-7378.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Airblast applicators must be in fully enclosed cabs or if not in fully enclosed cabs, applicators must wear:**

- Chemical resistant suit over long-sleeved shirt and long-legged pants
- Chemical resistant hood
- Full-face respirator or half-faced respirator with a face shield
- Chemical-resistant footwear plus socks

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

- Coveralls over long-sleeved shirt and long-legged pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Protective eyewear
- For exposure 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-21-C)

**Mixers and Loaders must wear:**

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or Viton
- 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 concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**NET CONTENTS \_\_\_\_\_ GALLONS**

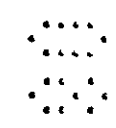
EPA Reg. No. 10163-80  
EPA Est. No. 67545-AZ-1



**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated:**

**AUG 23 1999**

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 10163-80



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

**Engineering controls statements:** HUMAN FLAGGING IS PROHIBITED. 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. Water-soluble packets, when used correctly, qualify as a closed loading system under the WPS. The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240(d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

**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**

**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.
- 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. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to inter-tidal areas below the mean high water mark. 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.

This product may not be reformulated for use on sugarcane, ornamentals, Christmas trees, shade trees, or forest trees.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry 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) listed in the chart below.

CROP	ACTIVITY	REI
Tree Crops (except citrus)	Hand Thinning	14 days
	Hand Harvesting	14 days
	Propping	2 days
	Mowing	2 days
	Irrigating	2 days
	Scouting	2 days
	Other activities (Involving similarly minimal contact with treated foliage.)	2 days

**AGRICULTURAL USE REQUIREMENTS (continued)**

Citrus	Hand Thinning	30 days	
	Hand Harvesting	30 days	
	Propping	2 days	
	Mowing	2 days	
	Irrigating	2 days	
	Scouting	2 days	
	Other Activities (Involving similarly minimal contact with treated foliage.)	2 days	
	Grapes	Girdling	21 days
		Cane Throwing	21 days
		Leaf Pulling	21 days
Cane Cutting		21 days	
Bunch Thinning		21 days	
Hand Harvesting		21 days	
Mowing		2 days	
Irrigating		2 days	
Scouting		2 days	
Other activities (Involving similarly minimal contact with treated foliage.)		2 days	
All Other Crops	All Activities	4 days	
	Mowing	2 days	
	Irrigating	2 days	
	Scouting	2 days	

Each 4 day REI is increased to 5 days and each 2 day REI is increased to 3 days in outdoor areas where average rainfall is less than 25 inches a year.

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
- Protective eyewear

**MIXING DIRECTIONS:** Gowan Azinphos-M 2 EC Emulsifiable Insecticide forms an emulsion when diluted with water and is suitable for use in all power-operated ground sprayers and aircraft sprayers. To mix with water, pour the required amount of product into full amount of water and then agitate. Gowan Azinphos-M 2 EC may also be applied undiluted as an ultra-low volume spray with either ground or aircraft equipment that has been adapted and calibrated for ultra-low volume spraying as described below under "RECOMMENDED APPLICATIONS" for those crops specified. ALL AERIAL APPLICATIONS REQUIRE ENCLOSED COCKPITS.

**COMPATIBILITY:** Gowan Azinphos-M 2EC is physically compatible with many registered pesticides and liquid fertilizers. When considering mixing this product with other pesticides or with liquid fertilizer, first contact your supplier. For further information, contact your local Gowan Company representative. If your supplier and Gowan representative have no experience with the combination you are considering, you should conduct tests to determine physical compatibility.

To determine physical compatibility, pour the recommended proportions of each chemical with the same proportion of water as will be present in the chemical supply tank into a suitable container, mix thoroughly and allow to stand for five minutes. If the combination remains mixed, or can be re-mixed readily, the mixture is considered physically compatible. When mixing wettable powder or dry flowable formulations, add and disperse these first, then add liquid pesticides. Conduct another compatibility test at concentrations which will be present in the irrigation lines. If there is any separation which cannot be re-mixed readily, Gowan Company recommends that the combination not be used. Combinations should be kept agitated and should be applied immediately. Do not allow combinations to sit for prolonged periods in the chemical supply tanks or irrigation lines.

**SPRAYING: BACKPACK or HANDSPRAYING IS PROHIBITED.** Prepare water dilutions appropriate for type of equipment used as described in DILUTION DIRECTIONS. When applying, work to windward. Complete coverage and thorough application is 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 the time of application. Except as specified for certain uses, the following rates are 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.

**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**

**ALL AAERIAL APPLICATIONS REQUIRE ENCLOSED COCKPITS.**

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

**Tree 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.

**REQUIREMENTS FOR REDUCING SPRAY DRIFT**

Do not apply under conditions where possible drift to unprotected persons or to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption can occur.

- For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or rotor diameter.
- Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure.
- For aerial applications, spray should be released at the lowest height consistent with efficacy and flight safety. Applications more than 10 feet above the crop canopy should be avoided.
- Make aerial or ground applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

- Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperature.
- Do not apply within 150 feet by air or 100 feet by ground of an unprotected person(s) or occupied dwelling.
- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

**To address Integrated Pest Management Issues:** Local integrated management systems are available for controlling the pests on this label. Such systems include the use of biological control agents, alternative chemicals, and scouting. Consult your local Extension specialist or other consultant for further details.

**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 2 EC 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 2 EC 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 2 EC is compatible with dormant and summer oils; these may be added to sprays in accordance with local recommendations. USE OF THIS PRODUCT IN GREENHOUSES OR ENCLOSED AREAS IS PROHIBITED.

**PREHARVEST INTERVAL**

The required days between the last application and harvest are given in ( ) after each crop name.

**RECOMMENDATIONS  
FIELD CROPS**

CROP	PEST	PINTS/ AC	COMMENTS
COTTON (Not for Louisiana and states East of the Mississippi River) (7) REI 48 hours	Boltweevil	1/2 to 1	Apply specified dosage per acre by air or ground equipment in sufficient water for complete coverage but not less than 1 gallon per acre. No more than 4 applications or 8 pints per acre per crop season may be used regardless of rate, formulation or method of application used.
	Pink Bollworm	2	
	Brown Cotton Leafworm, Cotton Fleahopper, Cotton Leafworm, Thrips	1	
	Rapid Plant Bug, Tarnished Plant Bug	1 to 2	
<ul style="list-style-type: none"> <li>Do not apply within 7 days of picking.</li> <li>Hand-picking of cotton is prohibited.</li> <li>May not be applied by chemigation.</li> <li>Do not graze treated fields.</li> </ul>			

6 9 10

**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.

CROP	PEST	PINTS/ AC	COMMENTS
<p><b>NECTARINES, PEACHES</b> (East of the Rocky Mountains) (21) REI The REI is specified by crop and activity. See the table in the Agricultural Use Requirements section of this label.</p>	<p>Aphid*, Cottony Peach Scale, European Fruit Lecanium Scale, Forbes Scale, Lesser Peachtree Borer, Oriental Fruit Moth, Peach Twig Borer, Peachtree Borer, <i>Platynota Flavidana</i> Leafroller, Plum Curculio, Redbanded Leafroller, San Jose Scale*, Stink Bug, Tarnished Plant Bug*, Terrapin Scale, Thrips, Walnut Scale, White Peach Scale</p>	<p>3 ½ to 4 ½</p>	<p>Apply specified dosage per acre as a full coverage spray. Allow at least 14 days between applications. A total of 13 ½ pints per acre per crop season may be applied. 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.</p>
<ul style="list-style-type: none"> <li>Do not apply by "fixed-wing" aircraft.</li> <li>Do not apply by chemigation.</li> <li>Allow at least 21 days between last application and harvest.</li> </ul>			
<p><b>NECTARINES, PEACHES</b> (West of the Rocky Mountains) (21) REI The REI is specified by crop and activity. See the table in the Agricultural Use Requirements section of this label</p>	<p>Lesser Peachtree Borer, Oriental Fruit Moth, Peach Twig Borer, Peachtree Borer, <i>Platynota Flavidana</i> Leafroller, Plum Curculio, Redbanded Leafroller, Stink Bug, Tarnished Plant Bug</p>	<p>6 to 8</p>	<p>Apply specified dosage per acre as a full coverage spray. Allow at least 14 days between applications. A total of 13 ½ pints per acre per crop season may be applied. 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.</p>
<ul style="list-style-type: none"> <li>Do not apply by "fixed-wing" aircraft.</li> <li>Do not apply by chemigation.</li> <li>Allow at least 21 days between last application and harvest.</li> </ul>			
<p><b>BLACKBERRIES, BOYSENBERRIES, LOGANBERRIES, RASPBERRIES</b> (See Text for PHI) REI 48 hours</p>	<p>Leafhopper, Leafroller</p>	<p>1</p>	<p>Apply specified dosage per acre to foliage using approximately 200 gallons of water for good coverage. Where ground conditions dictate an air application of product, use specified rate in a minimum of 1 gallon of water per acre. For control of scale, apply when crawlers are present.</p>
	<p>Leafminer</p>	<p>1 1/4</p>	
	<p>Aphid*</p>	<p>1 ¼ to 2</p>	
	<p>Obscure Root Weevil</p>	<p>2</p>	
<ul style="list-style-type: none"> <li>Do not apply within 15 days of harvest.</li> <li>Do not apply more than twice per season.</li> <li>Do not apply within 3 days of harvest at rates up to 2 lbs. per acre. Rates above 2 lbs. per acre should only be applied before fruit set or after crop is harvested.</li> </ul>			
<p><b>PLUMS, PRUNES</b> (East of the Rockies) (15) REI The REI is specified by crop and activity. See the table in the Agricultural Use Requirements section of this label.</p>	<p>Aphid*, Codling Moth, Eyespotted Bud Moth, Forbes Scale, Fruittree Leafroller, Lesser Peachtree Borer, Orange Tortrix, Peachtree Borer, Peach Twig Borer, Plum Curculio, Redbanded Leafroller, San Jose Scale*, Stink Bug*, Tarnished Plant Bug*, Tussock Moth</p>	<p>3 ½ to 4 ½</p>	<p>Apply specified dosage per acre as a full coverage spray. A total of 13 ½ pints per acre per crop season may be applied to plums and prunes. Allow at least 10 days between applications.</p>
<p>American Plum Borer</p>			
<p><b>PLUMS, PRUNES</b> (West of the Rockies) (15) REI The REI is specified by crop and activity. See the table in the Agricultural Use Requirements section of this label.</p>	<p>Eyespotted Bud Moth, Fruittree Leafroller, Lesser Peachtree Borer, Orange Tortrix, Peachtree Borer, Peach Twig Borer, Plum Curculio, Redbanded Leafroller, Stink Bug, Tarnished Plant Bug, Tussock Moth</p>	<p>4 to 8</p>	<p>Apply specified dosage per acre as a full coverage spray. A total of 13 ½ pints per acre per crop season may be applied to plums and prunes. Allow at least 10 days between applications.</p>
<p>American Plum Borer</p>			

FRUIT (Continued)

CROP	PEST	PINTS/ ACRE	COMMENTS
<b>CITRUS FRUITS</b> (30) REI The REI is specified by crop and activity. See the table in the Agricultural Use Requirements section of this label.	Aphid*, Black Scale, Brown Soft Scale, Chaff Scale, Citricola Scale, Citrus Thrips, Citrus Mealybug, Cottonycushion Scale, European Brown Snail, Florida Red Scale, Fruittree Leafroller, Fuller Rose Beetle, Glover Scale, Orange Tortrix, Snow Scale, Purple Scale, Western Tussock Moth, Whitefly	5 to 8	Apply specified dosage per acre as a full coverage spray. A single application per year may be applied up to within 30 days of harvest. Where 2 applications are required, allow at least 30 days between the second application and harvest. A total of two applications may be applied per fruit year regardless of rate of formulation used.
	California Red Scale, Yellow Scale	8	
<b>GRAPES</b> (21) REI The REI is specified by crop and activity. See the table in the Agricultural Use Requirements section of this label.	Grape Berry Moth, Grape Cane Girdler, Grape Mealybug, Leafhopper*, Redbanded Leafroller, Thrips	3 to 4	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.
<b>STRAWBERRIES</b> (5) REI 48 hours	Aphid*, Meadow Spittlebug, Obliquebanded Leafroller, Obscure Root Weevil, Omnivorous Leafhopper, Pea Leaf Weevil, Small Black (Grass) Weevil, Strawberry Leafroller, Whitefly	2	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 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.

VEGETABLES

CROP	PEST	PINTS/ ACRE	COMMENTS
<b>BROCCOLI</b> (15), <b>BRUSSELS SPROUTS</b> (7), <b>CABBAGE</b> (Includes tight heading varieties of Chinese Cabbage) (21), <b>CAULI-FLOWER</b> (15) REI 48 hours	Aphid*, Cabbage Looper, Diamondback Moth, Imported Cabbageworm	2 to 3	Apply specified dosage in sufficient water for complete coverage but not less than 1 gallon per acre. Do not apply within 7 days of harvest for Brussels sprouts, 15 days of harvest for broccoli and cauliflower, nor within 21 days of harvest for cabbage. Do not exceed more than 3 applications per season.
	<ul style="list-style-type: none"> <li>Do not exceed more than 3 applications per season.</li> </ul>		
	Cabbage Maggot	1/2	Mix specified dosage in 50 gals. 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)	3	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.
	<ul style="list-style-type: none"> <li>Do not apply within 21 days of harvest.</li> <li>Do not exceed more than three applications per season.</li> </ul>		
	Cabbage Maggot (Transplant Fields in California Only)	3	Use in 300 to 400 gals. of water per acre as a soil drench in rows when damage first appears. Additional applications may be necessary.
<b>CELERY</b> (14) REI 48 hours	Aphid*, Leafminer, Leafhopper, Spittlebug, Tarnished Plant Bug*	2	Apply specified dosage in 100 gallons of water as a full coverage spray using not more than 200 gallons of finished spray per acre. (This concentration is calculated for conventional hydraulic-type sprayers.) When lower volumes of spray are applied per acre with concentrate sprayers, increase the concentration of Azinphos M-2 EC in the spray mixture in order to apply the amount of Azinphos M 2 EC per acre equivalent to a full coverage spray.
	<ul style="list-style-type: none"> <li>Do not exceed more than 3 applications per season.</li> <li>Do not apply within 14 days of harvest.</li> </ul>		
<b>CUCUMBERS</b> (2) REI 48 hours	Spotted Cucumber Beetle, Striped Cucumber Beetle, Western-Striped Cucumber Beetle	2	Apply in sufficient water for complete coverage. Allow at least 7 days between applications and at least 1 day 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. A total of 3 applications may be made per crop season regardless of rate, formulation or method of application used.
<b>EGGPLANT</b> (21) REI 48 hours	Leafminer	1 1/2 to 2	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.
	European Corn Borer, Flea Beetle	2	
<ul style="list-style-type: none"> <li>Do not apply after fruit set or within 21 days of harvest.</li> </ul>			

VEGETABLES (Continued)

CROP	PEST	PINTS/ AC	COMMENTS
ONIONS, GREEN (7), DRY(28) REI 48 hours	Thrips	2 to 3	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. Allow at least 7 days between applications for dry bulb onions and at least 10 days between applications for green onions. For dry onions, allow at least 28 days between last application and harvest. For green onions, allow at least 14 days between last application and harvest.
	<ul style="list-style-type: none"> <li>Do not apply more than 3 times per crop season.</li> </ul>		
POTATOES (7) REI 48 hours	Colorado Potato Beetle*	1 ½	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 applications.
	Banded Cucumber Beetle, Leafminer	1 ½ to 2	
	European Corn Borer, Flea Beetle, Leafhopper, Spittlebug, Tarnished Plant Bug	2 to 3	
	Tuberworm	2 ¼ to 3	
TOMATOES (See Text for PHI) REI 48 hours	Colorado Potato Beetle*	1 ½	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 ½ lbs. per acre or less may be two days before harvest. Rates above 1 ½ 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.
	Banded Cucumber Beetle, <i>Drosophila</i> , Green Stink Bug, Leafminer, Whitefly	1 ½ to 2	
	Aphid*, European Corn Borer, Flea Beetle, Grasshopper, Leafhopper, Thrips	2 to 3	
	Tuberworm	2 ¼ to 3	
	Corn Earworm, Fruitworm, Pinworm, Yellowstriped Armyworm, Hornworm	3 to 6	

MELONS

MELONS (Honeydew Melons, Muskmelon, Cantaloupe, Watermelons, and other Melons) (7) REI 48 hours	Leafhopper, Leafminer	1 ½ TO 2	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. For application by irrigation systems, apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
	Rindworm, Spotted Cucumber Beetle, Striped Cucumber Beetle, Western Striped Cucumber Beetle	2	

ORNAMENTALS

SOUTHERN PINE SEED ORCHARDS (Except California) REI 48 hours	Coneworm, Seedworm	See Comments	Apply first application within 30 days following conelet closure, followed by no more than 3 applications (at least 30 days apart). May be applied through aerial application only at a maximum rate of 6 pints per acre, with no more than 3 applications per year and a total annual maximum of 18 pints per acre. Thorough coverage of cones is necessary for maximum control.
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NUTS

FILBERTS (Pacific Northwest Only) (45) REI The REI is specified by crop and activity. See the table in the Agricultural Use Requirements section of this label.	Apple Mealybug, Filbert Worm, Filbert Aphid, Filbert Leafroller	6 to 8	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 14 days between applications and at least 45 days between last application and harvest.
	<ul style="list-style-type: none"> <li>Do not graze livestock in treated groves for 21 days after treatment.</li> </ul>		
PECANS REI The REI is specified by crop and activity. See the table in the Agricultural Use Requirements section of this label.	Aphid*, Fall Webworm, Hickory Shuckworm, Leafminer, May Beetle, Pecan Casebearer, Southern Green Stink Bug, Spittlebug, Twig Girdler, Walnut Caterpillar	6 to 8	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. Repeat applications made at less than 21 day intervals are early entry activities. Allow at least 45 days between last application and harvest. Livestock may be grazed in treated groves after a 21 day post-treatment interval.
	<ul style="list-style-type: none"> <li>Do not apply after shuck split.</li> <li>Do not graze livestock in treated groves for 21 days after treatment.</li> </ul>		



**NUTS (Continued)**

CROP	PEST	PINTS/ AC	COMMENTS
<b>WALNUTS</b> REI The REI is specified by crop and activity. See the table in the Agricultural Use Requirements section of this label.	Codling Moth, Filbert Worm, Navel Orangeworm	6 to 8	Apply specified dosage per acre as a full coverage spray by air or ground. A total of 3 applications may be made per crop season regardless of dosage or formulation used.
<ul style="list-style-type: none"> <li>• Do not apply after husks split.</li> <li>• Do not exceed a total of 12 lbs. Gowan Azinphos-M 2 EC per acre per crop season.</li> <li>• Do not graze livestock in treated groves for 21 days after treatment.</li> <li>• Allow at least 14 days between applications.</li> <li>• Allow at least 21 days between application and harvest.</li> </ul>			

\*In some areas, these species may have developed resistance to organophosphate insecticides. Gowan Azinphos-M 2 EC 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 2 EC 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.

**GENERAL CHEMIGATION INSTRUCTIONS**

Application by chemigation is prohibited on pome fruit, peaches, and cotton.

Gowan Azinphos-M 2 EC 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 2 EC 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 non-uniform 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 injection 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.

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 2 EC 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 2 EC 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.

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 sign posted to comply with the Worker Protection Standard.

When mixing with other chemicals, refer to COMPATIBILITY section elsewhere on this label.

For application of Gowan Azinphos-M 2 EC alone, a chemical supply tank is necessary for premixing. For application of Gowan Azinphos-M 2 EC 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 2 EC to mix in the tank.

The amount of Gowan Azinphos-M 2 EC needed equals the number of pounds of Gowan Azinphos-M 2 EC 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 2 EC per acre x 130 acres = 260 pounds of Gowan Azinphos-M 2 EC. 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 procedures 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.

**SPRINKLER IRRIGATION SYSTEMS**

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

**STORAGE AND DISPOSAL**

Store in a cool, dry place below 120°F. Do not store next to herbicides. Protect from heat. Keep away from open flame. Do not heat. Do not store below 45°F.

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

**FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK, OR FIRE), CALL CHEMTREC® (800) 424-9300.**

For other product information, contact Gowan Company or see Material Safety Data Sheet.

**NOTICE ON CONDITIONS OF SALE**

Our recommendations for use of this product are based upon tests 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 as such, or in combination with other material.

EPA Text Pending: Azinphos-M 2 EC (to EPA 8-2-99 for crop deletions)

