PM 19

10163-139



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

JAN 2.8 1994

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

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BETHANY G. HULCY GOWAN COMPANY P.O. BOX 5569 YUMA, AZ. 85366

Subject: Label Amendment Submission of 09/22/93 In Response to PR Notice 93-7 EPA Reg. No. 10163-139 GOWAN AZINPHOS-M 35W

IMPORTANT NOTICE: This Letter Requires You to Submit a Notification to the Office of Compliance Monitoring within 20 Days.

Dear Registrant:

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

SERIOUS ERROR(S) ON SUBMITTED LABELING:

EPA has determined that one or more of the errors on the labeling you submitted to the Agency-is-categorized as "serious" as defined in PR Notice 93-11. In general, serious errors are those that may oreate a potential for harm to workers, handlers, other persons, or the environment; or those that prevent the achievement of the basic goals of the Worker Protection Standard (WPS) or FIFRA.

YOU MUST NOT SELL OR DISTRIBUTE (INCLUDING RELEASE FOR SHIPMENT). ANY PRODUCT BEARING THE SUBMITTED LABELING. Sale or distribution of any product with the incorrect labeling is a violation of FIFRA that could result in initiation of an action for civil penalties and/or cancellation of your product. This matter has been referred to the Office of Compliance Monitoring (OCM) for further action.

YOU MUST SUBMIT A NOTIFICATION TO THE OFFICE OF COMPLIANCE MONITORING WITHIN 20 DAYS OF THE DATE OF THIS LETTER.



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Each notification must include the following information:

- 1. Registrant's name and address.
- 2. EPA Registration number of the product for which the labeling was submitted.
- 3. Whether any product already has been sold or distributed (this includes released for shipment) bearing the submitted labeling.

In addition, the notification must include the following information, IF you have already sold or distributed any product bearing the submitted labeling:

- 1. Quantity of the product that has been sold or distributed.
- 2. EPA Producing Establishment number.
- 3. Location of the product, if known.
- 4. Proposed plan for assuring that product with the incorrect labeling in your control, as well as that in the hands of dealers/distributors/users, will be corrected. The plan must include your proposal for assuring that the labeling is corrected as soon as possible.

Submit the notification to:

Michael Wood, Director Compliance Division, (7203) Worker Protection Notification Office of Compliance Monitoring U.S. Environmental Protection Agency 401 M Street SW Washington, DC 20460

Failure to submit a notification also may result in initiation of an action under FIFRA for civil penalties, if you sold or distributed (this includes released for shipment) product bearing the incorrect labeling. 20

Page 3

IN ADDITION, YOU SHOULD CONTACT IMMEDIATELY THE PERSONS TO WHOM YOU SOLD OR DISTRIBUTED YOUR PRODUCT AND INFORM THEM NOT TO SELL OR DISTRIBUTE ANY PRODUCT WITH THE INCORRECT LABELING.

WHAT THIS ACCEPTANCE MEANS:

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

WHAT YOU NEED TO DO NEXT:

Submit the required notification. Then by the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

BEFORE selling or distributing any product bearing the final printed labeling as amended

AND

WITHIN one year from date of this acceptance.

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

Document Processing Desk (FIN-LABEL) Office of Pesticide Programs (7505C) U.S. Environmental Protection Agency 401 M Street, SW Washington, D.C. 20460-0001 Page 4

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

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

Sincerely,

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

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Attachment

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cc: Office of Compliance Monitoring

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division 5 9 20

Bethany G Hulcy GOWAN CO BOX 5569 YUMA AZ 85366

Comment for: EPA Reg Nr.10163-139 GOWAN AZINPHOS-M 35W

The following specific comments pertain to your WPS labeling submission concerning the product cited above:

The eyewear requirement for "applicators and other handlers" in the "Personal Protective Equipment" section on your proposed labeling is missing or incorrect. Remove the incorrect requirement (if any) and add "Protective Eyewear". The exact location is shown in Section A and B on Part 1 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

Add the following statement to the "Personal Protective Equipment" section on your proposed labeling immediately following the statement requiring an enclosed cab: "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." The exact location is shown in Section A of Part 1 of the Product Worksheet in Supplement Three-A to PR Notice 93.7.

The eyewear requirement for early entry in the Agricultural Use Requirements Box on your proposed labeling is missing or incorrect. Remove the incorrect requirement (if any) and add "Protective eyewear". The exact location is shown in Sections F and G on Part 2 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

Correct the typographical errors circled on your proposed label.

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 35 W

ACTIVE INGREDIENT:

O,O-dimethyl S-((4-oxo-1,2,3-benzotriazin-3 (4-H)-yl) methyl) phosphorodithioate	35.0%
INERT INGREDIENTS	<u>65.0%</u>
	100.0%

ACCEPTED with COMMENTS a EPA Letter United

KEEP OUT OF REACH OF CHILDREN

JAN 28 1994 Judar the Federal Jacapticide, Sumblide, and Redenticide Act a summitted for the particide equinered under EPA BAANGER 10163-139



POISON

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PELIGRO

Si usted no entiende la etiqueta, busque a <u>aluien</u> 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. Azinphosmethyl 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 is 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 _____ Pounds Contains _____ 1 3/8 pound water soluble packets



BEST AVAILABLE CUPY

EPA Reg. No. 10163-139 EPA Est. No. 10163-AZ-1

Net

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

Page 2 of 15

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.)

Page 3 of 15

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 48hour 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

Page 4 of 15

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.

10 7 20 page 5 of 15

SPRAYING

Prepare water dilutions appropriate for type of equipment used as described above and in DILUTION DIRECTIONS. When applying, work to windward. When low volumes of spray are applied, 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

Ground Application: 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.

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page 6 of 15 7 20

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.

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 the 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.

Gowan Azinphos-M 35 WP is compatible with dormant and summer oils; these may be added to sprays in accordance with local recommendations. Do not use oils within 30 days of sulfur or lime sulfur treatment.

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.

Rates are given in pounds of Gowan Azinphos-M 35 W per acre (lbs./A) (except for certain soil drench applications and ornamental applications). Applications should be made when pests appear and repeated as necessary. However, where the recommendations list a maximum number of treatments per season, applications must not exceed this number.

CHEMIGATION

Gowan Azinphos-M 35 W may be applied through recommended types of irrigation systems to many crops. The REMARKS section for each crop list the types of applications allowed. If application through irrigation systems is not listed in the REMARKS section for a crop. Gowan Azinphos-M 35 W may not be applied to that crop through irrigation systems.

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.

Types of Irrigation Systems

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Apply Gowan Azinphos-M 35 W only through sprinkler, including center pivot, lateral move, side roll, overhead solid set, or low pressure sprinkler irrigation systems. Do not apply GUTHION 35% Wettable Powder through any other types of irrigation systems.

GENERAL DIRECTIONS FOR ALL RECOMMENDED TYPES OF IRRIGATION SYSTEMS

Uniform Water Distribution and System Calibration

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 specialist, equipment manufacturers or other experts.

Chemigation Monitoring

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

Drift

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

page 70f 13 9 20

Required System Safety Devices

The system must contain a functional check valve, vacuum relief 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 value 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 krigation 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 when 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

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 services an average of at least 25 individuals daily at least 60 days out of the year.

DO NOT APPLY Gowan Azinphos-M 35 W THROUGH ANY IRRIGATION SYSTEM SUPPLIED BY A PUBLIC WATER SYSTEM UNLESS 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 value 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 no 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 Requirements

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.

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 other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive areas. 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 2½ 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 label.

Agitation

For application of Gowan Azinphos-M 35W, a chemical supply tank is necessary for premixing. For application of Gowan Azinphos-M35W, 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.



Page 13 1 10

Chemical Supply Tank Dilution

You must determine the required amounts of Gowan Az finition-M 35 W to mix in the tank

The amount of Gowan Azimphos-M 35 W needed equals the number of pounds of Gowan Azimphos-M 35 W 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 hour chemigation will take place.

For example, if you want to apply 2 pounds of Gowan Azinphos-M 35 W per acre to 130 acres in 20 hours and your injection pump delivers 15 gallons per hour, you need: 2 pounds Gowan Azinphos-M 35 W per acre X 130 acres = 260 pounds c Gowan Azinphos-M 35 W And, you need. 15 gallons per hour X 20 hours = 300 gallons of suspension = 300 gallons of water

Cleaning the Chemical Injection System

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.

Flushing the Irrigation 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.

Equipment Area Contamination

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.

Solid Set and Manually Controlled Linear Systems

For toliar 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. DO NOT USE END GUNS.

RECOMMENDED APPLICATIONS

CROP	PEST	Pounds Gowan Azinphos-M	REMARKS
FIELD CROPS	Leafhoppers	"%s to 1%s	Apply specified dosage per acre by air or ground
Alfaffa Birdstoot trefoil	Affatta weevil Egyptian alfalfa weevil	11/16 1017/16	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
tretoil (East of the Mississippi River only) Clover	Alfalfa plant bug Fleahopper Grasshoppers Lygus bugs Spittlebug	1%	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 irriga- tion systems: Apply specified dosage per acre Follow all directions given under the CHEMI- GATION section of the label. Only one application per cutting may be made regardless of rate, formulation or method o application used. Do not apply within 14 days of harvest at the rates of 1% to 1% pounds per acre or within 16 days of harvest at the rate of 1% pounds per acre.
Barley Oats Rye Wheat REI 43 hours	Cereal leaf beetle	1 10 13%	Apply specified dosage per acre in sufficient water for complete coverage. Do not app'v more than once per season. Do not harvest for food, feed, forage or graze within 30 days of treatment.
Soybeans	AphidsLeaf minersBean leaf beetleLeaf rollersGreenStink bugscloverwormVelvet beanLeafhopperscaterpillar	1 to 1 %	Apply specified dosage per acre in sufficient water to give complete coverage. Do not apply within 45 days of harvest. Do not graze or feed treated vines to livestock. Do not exceed more than 3 applications per
REI 48 hours	Mexican bean beetle	1% to 2%	season.





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CROP		PEST	Pounds Gowan Azing 35 W	hos-M REMARKS
FRUIT	NOTE. It is suggeste advance to remove to	that when treating fruit	during the bloom n orchards to be tr	period, bee keepers should be warned well in ealed. Do not graze livestock in
Apples Crab apples Pears REI 48 hours	Aphids* Apple maggot Codling moth European apple sawfly Eye-spotted bud moth Forbes scale Fruit tree leaf roller Green fruitworm* Leafhoppers*	Mealybug' Orange tortrix Pear midge Plum curculio Putnam scale Redbanded leat roller San Jose scale' Stink bug Tarnished plant bug'	2'% to 4% ('% to 1% pounds per 100 gallons)	Apply specified dosage per acre by air or ground equipment in sufficient water for onod cover- age. Up to 17% pounds Gowan Azinphos may be applied per crop season. Allow at least 7 days between applications and 7 days between last application and harvest. Gowan Azinphostis compatible with dor- mant and summer oils which may be added to apple and pear sprays in accordance with local recommendations.
Cherries KEI 48 hours	Eye-spotted bud moth Forbes scale Fruit flies Fruit tree leaf roller	Cherry leaf miner Mineola moth Lesser peach tree borer Plum curculio San Jose scale*	2% (%, pound per 100 gailons)	Apply specified dosage per acre as a full cov- erage spray Up to 8½ pounds of Gowan Az phos-M ³⁵ may be applied per acre per crop season. Allow at least 14 days between applications and 15 days between last application and harvest. California: Apply post-harvest only.
Apricots Nectarines Peaches (Eastern U.S.)	Aphids* Cottony peach scale European fruit tecanium scale Forbes scale Lesser peach tree borer Oriental fruit moth Peach tree borer Peach twig borer	Platynota flavedana leaf roller Plum curculio Redbanded leaf roller San Jose scale* Stink bug Thrips Tarnished plant bug Terrapin scale Walnut scale While peach scale	2% to 3% ('% to % pound per 100 gallons)	Apply specified dosage per acre as a full cov- erage spray Allow at least 14 days between applications. A total of 9% pounds per acre per crop season may be applied to nectarines. A total of 12% pounds per acre per crop season may be ap- plied 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 scatfold limbs, timed with moth flight. For control of scale, apply when crawlers are present. Gowan Azinphos-MS compatible with dor- mant and summer oils which may be added to peach sprays in accordance with local recommendations.
Apricots Nectarines Peaches (West of the Rocky Mountains) REI 41 heurs	Lesser peach tree borer Oriental fruit moth Peach twig burer Peach tree borer Platynota flavedana leaf roller	Plum curculio Redbanded leaf roller Stink bug Thrips Tarnished plant bug	4½ to 5"%	Apply specified dosage per acre. Allow at least 14 days between applications. A total of 9% pounds per acre per crop season may be applied to nectarines. A total of 12% pounds per acre per crop season may be ap- plied 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 scallold kmbs, timed with moth flight.

*In some areas, these species may have developed resistance to organophosphate Insecticides. And heter. A insecticide used alone may not provide satisfactory control in those areas. Consult your local agricultural advisor or cooperative extension service for recommendations.

page 90 f 13 20

15 9 20 page 10 of 15

CROP		PEST	Pounds rowen Azinfur 35 W	REMARKS
FRUIT (cont'd) Plums Prunes (Eastern U.S.)	Aphids* Codling moth Eyespotted bug moth Forbes scale Fruit tree leat roller Lesser peach tree borer Orange tortrix American plum bor	Peach tree borer Peach twig borer Plum curculio Redbanded leaf roller San Jose scale" Stink bug Tarnished plant bug" Tussock moth	21/2 to 31/4 (11/4 to 11/2 pound per 100 gallons)	Apply specified dosage per acre as a full cov- erage spray. A total of 9½ pounds per acre per crop season may be applied to plums and prunes. Allow at least 10 days between applications Allow at least 15 days between tast 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.
REI 48 hours				mant and summer oils which may be added to prune sprays in accordance with local rec- ommendations.
Plums Prunes (West of the Rocky Mountains)	Codling moth Eye-spotted bug moth Fruit tree leat roller Lesser peach tree borer Orange tortrix Peach tree borer	Peach twig borer Plum curculio Redbanded leaf roller Stink bug Tarnished plant bug* Tussock moth	2'¥i6 to 5'½6	Apply specified dosage per acre. A total of 9% pounds per acre per crop season may be applied to plums and prunes. Allow at least 10 days between applications. Allow at least 15 days between last application and harvest. For control of peach the borer, apply 2 or 3 sprays to trunk from ground to scatfold limbs. timed with moth flight.
AEI 48 hours	American plum borer		4% to 5'%	
	Leafhoppers	Leaf rollers	¥.	Apply specified dosage per acre to foliage us-
1	Leaf miners		1/4	Ing approximately 200 gallons of water for good coverage. Do not apply more than twice per
	Aphids		% to 1%	season nor within 14 days of harvest
Blackberries	Obscure root wee	vil	13/0	
Boysenberries Loganberries Raspberries	Obscure root wee	vil	11/1	For control of root weevils prior to harvest ap- ply specified dosage per acre to lower portion of canes and to the soil beneath the plants using approximately 200 gallons of water. Do not apply more than twice per season. Do not make applications within 3 days of harvest at rates up to 2% pounds per acre.
Blueberries (Eastern and North Central States only) REI 48 hours	Blueberry maggol Fruitworms Lecanium scale Plum curculio		1 1 10 2 16	Apply specified dosage per acre 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.

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"In some areas, these species may have developed resistance to organophosphate insecticides. A insecticide used alone may not provide satisfactory control in those areas. Consult your local agricultural advisor or cooperative extension service for recommendations.



CROP	PE		Pounds	- page 11 of 15 REMARKS 16 7 20
			35 W	
FRUIT (cont'd) Cranberries	Cranberry fruitworm Sparganothis sulfureana Tipworm		11/10 211/10	Apply specified dosage per acre by air using sufficient water for good coverage. For appli- cation by irrigation systems. Apply specified
REE 49 hours	Fireworms		2.4.1	dosage per acre. Follow all directions given under the CHEMIGATION section of the 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.
Citrus Fruits	Black scale Brown soft scale Chaff scale Citricola scale Citrus mealybug Citrus thrips Cottony-cushion scale	Florida red scale Fruit tree leaf roller Fuller rose beetle Glover scale Orange tortrix Purple scale Snow scale Western tussock moth Whiteflies	511/4 10 81/3	Apply specified dosage per acre 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.
REI 7 days	California red scale	Yellow scale	8½	
Grapes REI 4 8 hours	Grape berry moth Grape cane girdlers Grape mealybug Leathoppers*	Redbanded leaf roller Thrips Grape leaf skeletonizer	2½ to 2 ¹ ¥16	Apply specified dosage per acre as a full cov- erage 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 10 days between last application and harvest.
Strawberries	Aphids* Meadow spittlebug Oblique-banded leaf roller Obscure root weevil Omnivorous leaf tier	Pea leaf weevit Small black (grass) weevil Strawberry leaf roller Whitefly	12/14	Apply specified dosage per acre as a full cov- erage spray using sufficient water for good coverage. For application by irrigation sys- tems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of the 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	Peach twig borer Navel orangeworm		4% to 5'%	Apply specified dosage per acre. A total of 2 applications may be made per crop season regardless of rate or formulation used. Allow at least 30 days between applications and at least 60 days between last application and harvest. Do not apply after husks split.
REI 48 hours	BES	T AVAILABLE COP	D	CALIFORNIA ONLY: Apply specified dosage per acre by concentrate sprayer or as a full coverage spray using not more than 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. Application is limited to one dormant spray and/or two postbloom sprays per season. Last application may be made up to 28 days before harvest. Allow at least 120 days between the dormant and the first post-bloom spray. Bo not graze livestock in treated graves for 21 days after realegal.

"In some areas, these species may have developed resistance to organophosphate insecticides Augus A insecticide used atone may not provide satisfactory control in those areas. Consult your local agricultural advisor or cooperative extension service for recommendations.

CROP	PEST	Pounds (* wanAl-yhe') 35 W	Page 12 + 5 9
NUTS (cont'd) Filberts (Pacific Northwest only) RCT 48 hours	Apple mealybug Filbertworm Filbert aphid Filbert leaf roller	4% to 5%.	Apply specified dosage per acre as a full c erage spray A total of 3 applications may be made per c season regardless of rate or formulation us Allow at least 14 days between applicate and at least 30 days between last applicat and harvest. Do not graze livestock in treated groves for days after treatment.
Pecans 43 KEIA hours	Aphids*Southern greenFall webwormstink bugHickory shuckwormSpittlebugsLeafminersTwig girdlersMay beetlesWalnut caterpillarsPecan casebearer	4% to 5%	Apply specified dosage per acre as a full of erage spray. A total of 3 applications may be made per of season regardless of rate or formulation us Allow at least 7 days between application Do not apply after shuck split. Livestock may be grazed in treated gro after a 21-day post-treatment interval.
	MIT		
			mit
Walnuts RET 48 hours	Codling moth Walnut husk fly Filbertworm Red-humped Navel orangeworm caterpillar		Apply specified dosage per acre as a full corerage spray. A total of 3 applications may be made per crosseason regardless of rate or formulation user Allow at least 14 days between applications Do not apply after husks split. Do not graze livestock in treated groves for 2 days after treatment.
VEGETABLES Artichokes	Plume moth BEST AVAILABLE CON	4% U	Apply specified dosage per acre in sufficie water for complete coverage. For application by irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of the label. A total of 3 applications may be made per cre season regardless of rate, formulation method of application used. Allow at least 14 days between application and at least 30 days between last application and harvest. Do not feed or ensile treated forage.
	Leaf rollers Mites	₩ 10 1¥	
Beans (Dry and Snap)	AphidsLeafhoppersBean leafLeaf minersbeetleStink bugsGreenVelvet beancloverwormcaterpillar	1 to 1 %	Apply specified dosage per acre in sufficie water for complete coverage. Do not apply snap beans within 7 days of harvest nor to c
(Dry and Shap)	Mexican bean Tarnished beetle plant bug Spotted cucumber Western-striped beetle cucumber beetle Striped cucumber beetle	1%	beans within 30 days of harvest. Do not e ceed 4 applications. Do not feed or ens treated forage

*In some areas, these species may have developed resistance to organophosphate insecticides A1. pha-AL insecticide used alone may not provide satisfactory control in those areas. Consult your local agricultural advisor or cooperative extension service for

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	BEST AVAILABLE C	OPY)	page 13 of 15 187
CROP	PEST	Pounds cower Azine has 35% W	·····
VEGETABLES (cont'd)	Aphids Cabbage looper Diamondback moth Imported cabbageworm	14. to 2%	Apply specified dosage per acre 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, nor within 21 days of harvest for cabbage. Do not exceed more than 3 applications per season.
Broccoli Brussels Sprouts	Cabbage maggot	% to %	Mix specified dosage in 50 gallons of water. Apply 4 to 6 ounces of this emulsion per plant at or immediately after transplanting.
Cabbage (Includes tight heading varieties of Chinese cabbage) Cauliflower	Cabbage maggot (Direct seeded fields in California only)	2%	Apply specified dosage per acre 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 additional sprays are necessary during the growing sea- son, depending on time of year and maggot population. Do not apply within 21 days of har- vest. Do not exceed more than 3 applications per season.
KEI 48 hours	Cabbage maggot (Transplant fields in California only)	21/6	Apply specified dosage in 300 to 400 gallons of water per acre as a soil d ench in rows when damage first appears. Adoitional applications may be necessary. Do not apply within 21 days of harvest. Do not exceed more than 3 appli- cations per season.
Blackeyed peas (Southern peas, Crowder peas)	Corn earworm Cowpea curculio Leaf miners	2% 10 2%	Apply specified dosage per acre in sufficient water for complete coverage. Do not apply more than 4 times per season nor within 7 days of harvest. Do not use vines for feed or
REI 48 hours		110176	forage nor pasture treated areas.
Celery REI 48 hours	Aphids Leaf miners Leafhoppers Spittlebug Tarnished plant bug	176	Apply specified dosage in 100 gallons of water as a full coverage spray ^{**} using not more than 200 gallons of finished spray per acre. Do not apply within 14 days of harvest. Do not exceed more than 3 applications per season.
Cucumbers KEI 48 hours	Spotted cucumber beetle Striped cucumber beetle Western-striped cucumber beetle	17/16	Apply specified dosage 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 the label. A total of 3 applications may be made per crop season regardless of rate, formulation or method of application used. Allow at least 7 days between applications and at least 1 day between last application and harvest.
	Leaf miners	11/1 to 11/18	Apply specified dosage per acre in sufficient
Eggplant	European com borer Flea beetles	1%4	water to give complete coverage. For appli- cation by irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of the label. A total of 3 applications may be made per crop season regardless of rate, formulation or method of application used.
REI 48 hours	l		Allow at least 7 days between applications, and all niv at least 2 I days between a st

**This concentration is calculated for conventional hydraulic-type sprayers. When lower volumes of spray are applied par acre with concentrate sprayers, the concentration of Gowan Azinnhos-H 35 W in the spray mixture must be increased in order to apply the amount of Gowan Azinnhos-11 35 W per acre equivalent to a full coverage spray

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CROP	PEST		Pounds Gowan Alinghas 35 W	M REMARKS	
VEGETABLES (cont'd) Onions (Green and Dry) RET 49 hours	Thrips		1% 10 2%	Apply specified dosage per acre by air or ground equipment in sufficient water for complete cov- erage. For application by irrigation systems Apply specified dosage per acre. Follow a directions given under the CHEMIGATION section of the label. A total of 3 application may be made per crop season regardless of rate, formulation or method of application used Allow at least 7 days between applications for dry bulb onions. Allow at least 10 days be tween applications for green onions. For dry onions, allow at least 28 days betwee last application and harvest. For green onions, allow at least 7 days be tween last application and harvest.	
Peppers	Leaf miners		1%s to 1%s	Apply specified dosage per acre by air or groun equipment in sufficient water for complete coverage. For application by irrigation systems	
FEI 48 hours	European corn borer Flea beetles		11/14	Apply specified dosage per acre. Follow a directions given under the CHEMIGATIO section of the label. A total of 3 application may be made per crop season regardless of rate, formulation or method of application user Allow at least 7 days between applications an 7 days between last application and harvest	
	Colorado potato beetle		11/16	Apply specified dosage per acre in sufficie	
	Banded cucumber beetle Leaf miners		1%s to 1%s	water for complete coverage. For application by irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of the label. A total	
Potatoes	borer Spit Flea beetle Tarr	Ihoppers Itlebugs nished Iant bug	13 10 2%	3 applications may be made per crop seat regardless of rate, formulation or method application used. Allow at least 7 days between applications a	
LEI 48 hours	Tuberworm		1% 10 2%	7 days between last application and harves NOTE: Resistance of Colorado polato beet has occurred in some areas. Consult your l cal Extension Service or GowArd sales re resentative for details.	
Spinach NEI 48 hours	Aphids Leaf miners Mites		1 10 1%	Apply specified dosage per acre in sufficie water for complete coverage. Do not app within 14 days of harvest. Do not exceed mo than 3 applications per season.	
	Colorado potato beetle		11/14	Apply specified dosage per acre by air or grou	
	beetie Lea	en stink bug If miners itefly	1 1/10 10 11/10	equipment in sufficient water for complete co erage. For application by irrigation system Apply specified doszge per acre. Follow directions given under the CHEMIGATION	
Tomatoes	Aphids* European corn borer Flea beetles Grasshoppers Leathoppers Thrips		1% 10 2%	 section of the label. A total of 4 applic, may be made per crop season regardle rate, formulation or method of application. The high rates should be used where infestations of late instar lepidopterous (large worms) and pinworms are present. Allow at least 7 days between application. 	
	Tuberworm		1% to 2%	Rates of 2% pounds per acre or less may	
	Hornworm Yel	worm Iow-striped armyworm	2% to 4%	applied up to day of harvest. Rates above 2% pounds require an inter 14 days between last application and ha NOTE: Resistance of Colorado potato I has occurred in some areas. Consult yo cal Extension Service or Gow MJ sale	

*In some areas, these species may have developed resistance to organophosphate insecticides Auropho- Al insecticide used alone may not provide satisfactory control in those areas. Consult your local agricultural advisor or cooperative extension service for recommendations

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CROP	PEST	Pounds Gorgen Arighes 35 W	REMARKS
MELONS Honeydew	Leathoppers Leat miners	1% to 1%	Apply specified dosage per acre in sufficien water to give complete coverage. For appli
melons Muskmelon (cantaloupe) Watermelons Other melons	Rindworms Striped cucumber Spotted beetle Western-striped cucumber beetle cucumber beetle	1%	cation by irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of the label A total of 3 applications may be made per cro season regardless of rate, formulation of method of application used. Allow at least 5 days between applications and at least 7 days between last application and harvest.
CRNAMENTALS Southern - Fine Seed Orcharos	Coneworm Seedworm	See Remark	Use 3.25 pounds per 100 gallons of wate (0.2% dilution) as a full coverage apray.". Use 1.6 pounds per 10 gallons of water (1% dilution for low volume sprayers. Apply first application within 30 days following consist clasure foll lower by 3 to 5 applications (at least 30 days apart). Apply approximately 5 to 10 gallons of the 0.2% dilution with high volume scrayers of approximately 1 to 2 gallons of the 1% dilution with low volume sprayers per tree. Thoroug coverage of cones is necessary for maximum control.
Ornamentals Nursery Plants	Aphids Mites Cerococcus scale Olive scale Euonymus scale Oystershell scale Juniper scale Pulvinaria scale Lace bugs Thrips Leathoppers Control of the scale	1 to 14	Apply specified dosage per 100 gallons in water (1½ twaspoonfuls per gallon). Spray a foliage surfaces including the underside in leaves for complete coverage, For controlm black pine leaf, brown soft, European elm, en Putmam scalvs, use the higher rate. Repeat a necessary.
	Brown soft scale Putnam scale	2%	
REI 48 hours	European ern scale Biack pine lest scale	2:0102	<u>!</u> ?

"In some areas, these species may have developed resistance to organophosphate insecticides. Gutanon insecticide used alone may H2:100-5-m "This concentration is calculated for conventional, hydraulic-type

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not provide satisfactory control in those areas. Consult your local agecultural advisor or cooperative extension service for recommendations

A DESCRIPTION OF THE DAY -----**.** sprayers. Whe Centrate opra Wettsble Fow -

interiori is carculated for conventional, nyoraexe-type
ten lower volumes of spray are applied per acre with con- " (Spray, in Southern Pine Suid Orchards where conditions dictate an air
rayers, increase the concentration of OUTHON-3396 are application, apply dosage per acre equivalent to a full coverage ground
mover in the spray muture in order to apply amount of 4 95 spray in not less than one gallon of water per acre.

CROP	PEST	Pounds OUTHIONS SSN.WP	un Alinghas-M REMARKS
Ornamentale (cont'o) Ornamental: Nursery Plante	Cone midge Cone moth	5.41011	Apply specified dosage per 100 gallons of, water. Two applications to coincide with moth, flight when cones are open for pollination. Thorough coverage of cones is necessary for maximum control. Repeat as necessary
	European pine shoot moth Nantucket pine tip moth	\$ 10 2'5	Apply specified docage per acre in sufficient water for good coverage. The applications tracceled with moth fights.
REI 48 hours	Injury to hawthern or American linden may occur until material has been washed into soil and treat	under some conditi ed area is dry	ons. Do not allow crubbren or path on treatent area
Chrustmas Trees REI 48 hows	Scale spp. Sewily spp. European pine shoot moth Eastern pine shoot borer Nautucket pine tiju moth	1 to 2;s	Apply specified dosage per acre by eir or ground equipment in sufficient water to pive complete coverage but not less than 1 gallun per acre. Time applications to coincide with susceptible plist development

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