United States Environmental Protection Agency

S581555

Terre Ferrell
Gowan Company
P.O. box 5569
Yuma, AZ 85366-5569

JUN 28 2000

Subject: Addition of new use on Sweet Potatoes foliar and plantbed application.
Registration No. 10163-169
Product Name: Imidan® 70-W
Submission dated: April 18, 2000

Dear Mrs. Ferrell:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable subject to the comments listed below. Five copies of the finished labeling must be submitted prior to releasing the product for shipment.

1. Within the "Comments" Section of the listed crop "Cranberries" the language as accepted on February 11, 2000 (stamped copy of label enclosed) states the following: *"For heavy insect infestations, use higher dosage rates. For best results, treat early-stage larvae. Apply in sufficient water to obtain complete coverage. Repeat applications no sooner than 10 days with a minimum spray volume of 20 gallons per acre in order to maintain control."* Your current submission has been altered by notification on April 20th, 2000 to state the following: "For heavy insect infestations, use higher rates. For best results, treat early-stage larvae. Apply in sufficient water to obtain complete coverage. Make applications with a minimum spray volume of 20 gals. per acre by ground and 2 gal. per acre by air. This section needs to be corrected to re-include the 10 day minimum re-treatment interval. This specific language was also outlined in the Agency review with regard to Cranberries. An acceptable corrected statement should be as follows:

   "For heavy insect infestations, use higher dosage rates. For best results, treat early-stage larvae. Apply in sufficient water to obtain complete coverage. Repeat applications no sooner than 10 days with a minimum spray volume of 20 gallons per acre by ground and 2 gal. per acre by air."

If you have any questions in reference to this label correction, contact Richard Gebken at (703) 305-6701.

Sincerely,

George LaRocca
Product Manager 13
Insecticide Branch
Registration Division (7505C)

010163-00169 S581555.wpd

CONCURRENCES

SYMBOL ▸	H7505C							
SURNAME ▸	RGEBKEN							
DATE ▸	Jun 28, 2000							

EPA Form 1320-1 (12-70) OFFICIAL FILE COPY

2 7 8

Imidan® 70-W

Agricultural Insecticide

Wettable Powder...For Multi-Crop Pest Control

	% By Wt.
ACTIVE INGREDIENT: Phosmet	
N-(Mercaptomethyl) phthalimide, S-(O,O-dimethyl phosphorodithioate	70.0%
INERT INGREDIENTS	30.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN

WARNING-AVISO

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

Call a Poison Control Center or a physician immediately. If a known exposure occurs or is suspected, immediately start the recommended procedures below. Simultaneously contact a Poison Center, a physician, or the nearest hospital. Inform the person contacted of the type and extent of exposure, describe the victim's symptoms, and follow the advice given.

NOTE: Be sure to advise the person contacted that the compound is a cholinesterase inhibitor.

NOTE TO MEDICAL PERSONNEL: Exposure may cause cholinesterase inhibition. Atropine by injection is antidotal. 2-PAM (Protopam Chloride) is also antidotal when administered early and in conjunction with atropine.

IF SWALLOWED: Immediately give several glasses of water and induce vomiting by gagging the victim with a finger placed on the back of the victim's tongue. Give fluids until vomitus is clear. If victim is unconscious or convulsing, do not induce vomiting or give anything by mouth.

IF INHALED: Remove to fresh air. If not breathing, clear victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen, preferably with a physician's assistance.

IF ON SKIN: Flush all affected areas with plenty of water for several minutes. Seek medical attention if skin irritation occurs.

IF IN EYES: Hold eyelids apart and flush eyes with plenty of water. Get medical attention if irritation persists.

FOR EMERGENCY RESPONSE AND HAZARD COMMUNICATIONS *ONLY*, CALL 1-800-228-5635 EXT. 283.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING-AVISO

May be fatal if swallowed, inhaled, or absorbed through the skin. Do not breathe dust or spray mist. Do not get in eyes, on skin, or on clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Chemical-resistant headgear for overhead exposure
- Dust/Mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R.P. or HE filter.

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

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops while bees are actively visiting the treatment areas.

USE PRECAUTIONS

Not for use in residential areas.

Read all precautions and directions before using. Apply this product only as specified on this label.

Imidan 70-W is compatible with most commonly used insecticides and fungicides, but is incompatible with alkaline materials such as spray lime, lime sulfur, and Bordeaux mixtures. These materials will reduce the insecticidal activity of Imidan 70-W.

Insecticidal activity may also be reduced when the spray solution has a pH of 7 or higher. The pH of the spray solution must be corrected by the addition of a suitable buffering or acidifying agent for optimum insecticidal activity.

NET CONTENTS _____ LBS.

ACCEPTED
with COMMENTS
In EPA Letter Dated
JUN 28 2000

EPA Reg. No. 10163-169
EPA Est. No. 67545-AZ-1

Gowan

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

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 10163-169

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 exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

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
- Waterproof gloves
- Shoes plus socks
- Chemical-resistant headgear for overhead exposure

DILUTION DIRECTIONS

The rate required for thorough, uniform coverage varies with plant growth at time of application. Apply recommended rate in adequate spray volumes to provide complete coverage of fruit and foliage.

- Dilute or concentrate applications can be made. Use conventional ground equipment.
- For aerial applications, apply in a minimum of 2 gals. of water per acre for field and row crops, and a minimum of 5 gals. of water per acre for tree and vine crops unless otherwise specified in the recommendation for a specific crop.

MIXING DIRECTIONS

If this product is packaged in water soluble bags, please read and observe the following directions for use:

- Packets containing Imidan 70-W are water soluble. Avoid exposing inner bags to moisture.
- Do not allow bags to become wet prior to adding to the spray tank.
- Do not handle inner bag with wet hands.
- Reseal outer bag in a manner that protects remaining packets from moisture.
- To prepare the spray mixture, drop the required number of unopened packets, as determined under RECOMMENDATIONS, into the spray tank while filling with water to the desired level (whenever possible direct the fill water over the top of the packets to increase the rate of solubility). Where dosages of Imidan 70-W are expressed as fractions of pounds, prepare the tank mix load to the lower of the nearest whole package.
- Operate the agitator while mixing.
- Depending on the water temperature and the degree of agitation, the packets should be completely dissolved within approximately three to five minutes from the time they were added to the spray tank.
- Once the packets have completely dissolved, add other chemicals following conventional mixing order practices.
- Tank-mix solutions containing boron will affect the solubility of the water soluble film. When preparing tank mixes containing boron, add the correct amount of Imidan 70-W to the spray tank first. Make sure that the water soluble packets are completely dissolved. Add boron-containing solutions to the spray tank last.

If this product is *NOT* packaged in water soluble bags, please read and observe the following directions for use:

- Pour recommended amount of this material on the surface of water in a nearly filled spray tank.
- Add balance of water to fill the tank.
- Keep agitator running during filling and spraying operations. Do not allow mixture to stand.

GENERAL CHEMIGATION INSTRUCTIONS

Apply this product only through one or more of the following types of systems: Sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set or hand move). Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

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.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. 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.

For Chemigation Systems Connected to 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 serves an average of at least 25 individuals daily at least 60 days out of the year.

Do not apply Imidan 70-W through any irrigation system supplied by a public water system unless the water supplied 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.

In addition, all directions and requirements specified for Sprinkler Irrigation Systems must be followed.

Sprinkler Irrigation Systems

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.

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

Center pivot, motorized lateral move, or traveling gun types of equipment: Inject into the system for one revolution or run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until Imidan 70-W has been cleared from the last sprinkler head. Do not use end guns. The system should be run at maximum speed for a foliar application.

Wheel move, side roll, end tow, solid set, or hand move types of equipment: Adjust equipment to inject Imidan 70-W over a 30-60 minute period. Shut off injection equipment. Continue to operate irrigation system until Imidan 70-W has been cleared from the last sprinkler head. Imidan 70-W can be injected at the end of the irrigation cycle or as a separate application. Do not use end guns. Imidan 70-W must be

premixed in a supply tank with water and other appropriate tank-mix chemicals. Agitation is necessary at all times.

Caution must be exercised in irrigation waters with a pH greater than 7. If the irrigation cycle will last longer than 8 hours and the Imidan 70-WSB is premixed in the supply tank, the tank mix must be buffered to a pH of 6 or lower. Please contact your Gowan sales representative should this situation apply. Application should be in sufficient water and of sufficient duration to apply the recommended rate evenly over the entire treated area.

No field runoff can be permitted during chemigation.

RESISTANCE MANAGEMENT

Imidan is an organophosphate insecticide. Based on historical use patterns in some areas, certain pest species listed on this label may have developed resistance to organophosphate insecticides. Consult your local agricultural advisor, State Cooperative Extension Service, or regional Gowan Company representative for recommendations.

USE LIMITATIONS

Do not exceed the maximum rate of Imidan 70-W per acre or the time limitations specified for the individual crops.

USE RECOMMENDATIONS

FRUIT AND NUT CROPS

DORMANT SPRAYS: Imidan 70-W may be used during dormancy to control specified insects listed in each crop grouping which may overwinter on the tree and vine crops. Imidan 70-W may be used in combination with spray oils; always follow spray oil manufacturer's label recommendations.

SPLIT APPLICATION SPRAYS: Applications to tree fruits and nuts may be made using a split application spray schedule. See crop for more specific application directions (if applicable).

The split application method may be used to improve efficacy and, in the case of nut crops, to time insecticide applications at the onset of hullsplit of different maturing varieties that may be present within a single orchard. Check with your local agricultural advisor, State Cooperative Extension Service or regional Gowan Company representative for recommendations.

PREHARVEST INTERVAL

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

FRUIT AND NUT CROPS

CROP	PEST	USE RATE lbs./acre	COMMENTS
ALMONDS (30)	Peach Twig Borer	4 1/3 - 4½	Limit use on bearing almonds to one foliar application per season.
ALMONDS (California only) (30)	Peach Twig Borer, Navel Orangeworm	4 1/3 - 5 1/3	In California only, to obtain optimum navel orangeworm control in the spring application, proper timing of sprays should be coordinated with effective use of a navel orangeworm monitoring system. Late season treatments must be applied before hull split reaches 10%.
	• Do not make more than 2 applications per season as a foliar spray.		
	DORMANT SPRAY: Peach Twig Borer, San Jose Scale		For control of scale insects during dormant application, tank mix recommended rate of Imidan with dormant spray oil. Follow oil manufacturer's use directions. Add oil to the spray tank last, after buffer and Imican 70-W have been added.
APPLES (7) **CRABAPPLES** (California Only) (7)	Apple Maggot, Codling Moth, Elm Spanworm, Dock Sawfly, European Corn Borer, European Sawfly, Fruittree Leafroller, Green Fruitworm, Gypsy Moth, Japanese Beetle, Mealybug, Orange Tortrix, Oriental Fruit Moth, Peach Twig Borer, Plum Curculio, Redbanded Leafroller, Redhumped Caterpillar, Rose Chafer, San Jose Scale	2 1/3 - 5 1/3 (or ¾ - 1 lb. per 100 gals. not to exceed 5 1/3 lbs./acre)	For heavy insect infestations and areas west of the Rockies, use higher dosage rates (3 ½-5 1/3 lbs./acre). Repeat applications as necessary in accordance with insect infestations and local and State spray programs.
	• Do not apply more than 30 lbs. per acre per crop season. • For use on crabapples in California only.		
APPLES - Tank Mix with Methomyl (Lannate®) (Northeast only) (8)	For control of the insects listed above for apples, plus Apple Aphid, Obliquebanded Leafroller, Rosy Apple Aphid, Tarnished Plant Bug, Sparganothis Leafroller, Spotted Tentiform Leafminer, Tufted Apple Budmoth, Variegated Leafroller, White Apple Leafhopper	1 1/3 - 2 2/3 lbs. of Imidan 70-WSB plus ½ - 1 lb. 90% methomyl water soluble powder or 1½ - 3 pints 24% methomyl LV (1/3 - 2/3 lb. Imidan 70-WSB plus 2 - 4 oz. methomyl WSP or 6 - 9 oz. of methomyl LV per 100 gals. of water)	Apply as a full cover spray using up to 400 gals. per acre. Repeat as necessary in accordance with insect infestations and local and State spray programs
	• Do not use on Early MacIntosh or Wealthy varieties. • Do not graze/feed livestock under treated trees for 10 days after application. • Do not apply more than 30 lbs. per acre of Imidan 70-W per crop season.		

FRUIT AND NUT CROPS (continued)

CROP	PEST	USE RATE lbs./acre	COMMENTS
APRICOTS (14)	Apple Maggot, Fruittree Leafroller, Japanese Beetle, Orange Tortrix, Oriental Fruit Moth, Peach Twig Borer, Plum Curculio, Redbanded Leafroller, Rose Chafer, Western Tussock Moth	2 ⅛ - 4 ¼ (or ¾ - 1 lb. per 100 gals. not to exceed 4 ¼ lbs./acre)	For heavy insect infestations and areas west of the Rockies, use higher dosage rates (4 ¼ lbs./acre). Repeat applications as necessary in accordance with insect infestations and local and State spray programs.
BLUEBERRIES (Northeastern U.S. only) (3)	Blueberry Maggot, Cherry Fruitworm, Cranberry Fruitworm, Flea Beetle, Grasshopper, Japanese Beetle, Plum Curculio, Obliquebanded Leafroller, Redbanded Leafroller, Redstriped Fireworm, Rose Chafer, Sawfly, Spanworm, Strawberry Root Weevil Adult	1 ⅓	Apply as a foliar spray in a minimum of 2 gals. of water by aircraft. A second application may be made when indicated by insect infestations and local or State spray programs.
CRANBERRIES (14)	Fireworms, Cranberry Fruitworm, Cranberry Weevil, Spanworms, Gypsy Moth, *Sparganothis* Fruitworm, Cutworms, Blossomworm, False Armyworm, Cranberry Tipworm Midge	1 1/3 – 4 (not to exceed 15.6 lbs. of Imidan 70-W per season)	For heavy insect infestations, use higher rates. For best results, treat early-stage larvae. Apply in sufficient water to obtain complete coverage. Make applications with a minimum spray volume of 20 gals. per acre by ground and 2 gals. per acre by air.
	• Do not apply within 14 days of harvest. • May need to use higher dosage for Fruitworm and Cranberry Weevil control. • Consult with your pest management advisor or local Extension Service for specific recommendations on rates and timing.		
CHERRIES Sour (Tart) (7)	Cherry Fruit Fly, Fruittree Leafroller, Japanese Beetle, Peach Twig Borer, Plum Curculio, Rose Chafer, San Jose Scale	2 ⅛ - 2½ (or ¾ lb. per 100 gals. not to exceed 2 ½ lbs./acre)	Repeat applications as necessary in accordance with insect infestations and local and State spray programs.
	Syneta Beetle	1 ⅓	Apply in a minimum of 50 gals. of water per acre. Use prebloom (popcorn stage) if beetles are present, and allow 5 days before introducing bees. If not sprayed prebloom and Syneta beetle is a problem, apply at petal fall prior to shuck fall.
GRAPES (East of the Rockies) (14)	Rose Chafer, Flea Beetle, Grape Berry Moth, Grape Cane Borer, Grape Cane Girdler, Grape Leafhopper, Grape Mealybug, Japanese Beetle, Redbanded Leafroller	1 ⅓ - 2 ⅛	For grape berry moth, apply prebloom, postbloom, first and late cover sprays as needed. For grape leafhopper, apply when most nymphs hatch (generally coincides with grape berry moth). Use higher rates for control of Japanese beetle. Spray both sides of each row, and tops of vines to assure adequate coverage of fruit and foliage. Repeat applications as necessary in accordance with insect infestations and local and State spray programs.
GRAPES (West of the Rockies) (See text for PHI)	Grape Mealybug, Vine Mealybug	2 ⅛	Apply prior to bud break as a delayed dormant treatment in combination with oil or spreader sticker. Use adequate volume to ensure thorough coverage.
	Grape Mealybug, Vine Mealybug, Grape Leaffolder, Omnivorous Leafroller, Western Grapeleaf Skeletonizer	1 ⅓	Apply as early as first sizing spray and repeat at 10 - 14 day intervals as needed to provide additional insect control. Adequately cover fruit and foliage when insects are present.
	Grape Leaffolder, Omnivorous Leafroller, Western Grapeleaf Skeletonizer	1 - 2 ⅛	Adequately cover fruit and foliage when insects are present. When applying more than 1 ⅓ lbs. of Imidan 70, use proper spray volume pressure and nozzling in order to minimize the possibility of visible residue associated with wettable powder.
	• Do not apply within 7 days of harvest when using rates of 1 ⅓ lbs. per acre or less. • Do not apply within 14 days of harvest when using rates greater than 1 ⅓ lbs. per acre.		
NECTARINES (14)	Apple Maggot, Japanese Beetle, Omnivorous Leafroller, Oriental Fruit Moth, Peach Twig Borer, Plum Curculio, Redbanded Leafroller, Rose Chafer, San Jose Scale	2 ⅛ - 4 ¼ (or ¾ -1 lb. per 100 gals. not to exceed 4 ¼ lbs./acre)	For heavy insect infestations and areas west of the Rockies, use higher dosage rates (4 ¼ lbs./acre). Repeat applications as necessary in accordance with insect infestations and local and State spray programs.
	• Do not use Omite® in combination with Imidan 70-WSB on late maturing nectarine varieties as fruit injury may result.		

FRUIT AND NUT CROPS (continued)

CROP	PEST	USE RATE lbs./acre	COMMENTS
PEACHES (14)	Japanese Beetle, Oriental Fruit Moth, Peach Twig Borer, Plum Curculio, Rose Chafer, San Jose Scale	2 ⅛ - 4 ¼ (or ¾ -1 lb. per 100 gals. not to exceed 4 ¼ lbs./acre)	For heavy insect infestations and areas west of the Rockies, use higher dosage rates (4 ¼ lbs./acre). Repeat applications as necessary in accordance with insect infestations and local and State spray programs.
	• Do not apply more than 17 lbs. per acre per crop season.		
PEARS (7)	Apple Maggot, Codling Moth, Elm Spanworm, Fruittree Leafroller, Gypsy Moth, Japanese Beetle, Mealybug, Plum Curculio, Redbanded Leafroller, Rose Chafer	2 ⅛ - 7 ⅛ (or ¾ - 1 lb. per 100 gals. not to exceed 7 ⅛ lbs./acre)	For heavy insect infestations and areas west of the Rockies, use higher dosage rates (3½ - 7 ⅛ lbs./acre). Repeat applications as necessary in accordance with insect infestations and local and State spray recommendations.
PECANS (14)	Black Pecan Aphid, Fall Webworm*, Hickory Shuckworm, Pecan Nut Casebearer, Pecan Weevil*, Southern Green Stink Bug*, Spittlebug	2 - 3 ⅛ (or 1 lb. per 100 gals. not to exceed 3 ⅛ lbs./acre)	For heavy insect infestations, use higher dosage rates. Check with your local Extension Service for recommended use rates in your area. Apply in sufficient water for complete coverage when infestations start. Repeat applications as necessary in accordance with insect infestations and local and State spray programs. For low to moderate populations of pecan weevil, use 3 ⅛ lbs. per acre and repeat application at 7 day intervals. *Adequate control may not be achieved when heavy populations are present.
	• Do not graze or feed livestock on cover crops grown in treated pecan groves.		
PISTACHIOS (California only) (14)	Navel Orangeworm, Obliquebanded Leafroller, Peach Twig Borer	4 ⅓ - 5 ⅔	For optimum navel orangeworm control in the spring, use an appropriate navel orangeworm monitoring system to determine proper timing of the spray. Late season treatment for navel orangeworm must be applied before hull split reaches 10%.
	• Do not apply more than 5 ⅔ lbs. per acre per season as a foliar spray. • Do not allow livestock to graze or feed on cover crops in treated pistachio groves.		
	DORMANT SPRAY: Peach Twig Borer, San Jose Scale	3 - 4 ⅓	Apply as a full coverage dormant spray with a suitable spray oil according to oil manufacturer's specifications. Thorough coverage is essential for effective pest control.
PLUMS, PRUNES (7)	Apple Maggot, Codling Moth, Japanese Beetle, Omnivorous Leafroller, Oriental Fruit Moth, Peach Twig Borer, Plum Curculio, Redhumped Caterpillar, Redbanded Leafroller, Rose Chafer, San Jose Scale	2 ⅛ - 4 ¼ (or ¾ - 1 lb. per 100 gals. not to exceed 4 ¼ lbs./acre)	For heavy insect infestations and areas west of the Rockies, use higher dosage rates (3½ - 4 ¼ lbs./acre). Repeat applications as necessary in accordance with insect infestations and local and State spray programs.
WALNUTS, FILBERTS, and **OTHER NUTS** (including Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Hickory nut, Macadamia nut, and all hybrids or cultivars of these) (14)	Codling Moth, Navel Orangeworm, Walnut Husk Fly	4 ⅓ - 8 ½	For heavy insect infestations, use higher dosage rates. Repeat applications as necessary in accordance with insect infestations and local and State spray programs.
	• Do not apply more than 8 ½ lbs. per acre per application or more than 5 times per season. • Do not apply after hull split.		

FIELD, FORAGE, AND VEGETABLE CROPS

CROP	PEST	USE RATE lbs./acre	COMMENTS
ALFALFA (See text for PHI)	Alfalfa Blotch Leafminer*, Alfalfa Plant Bug*, Common and Egyptian Alfalfa Weevil larvae and adults, Fleahopper, Grasshopper, Lygus Bugs*, Pea Aphid*, Potato Leafhopper**, Leafhoppers, Spittlebugs	Arizona, California and Nevada: 1 All other alfalfa growing regions: 1 - 1 1/3	Apply in a minimum of 10 gals. of water by ground equipment (20 gals. for dense stands) or 5 gals. of water by aircraft. Consult your local farm advisor regarding the proper timing of application. Larvae should be sprayed when they are actively feeding. For application by irrigation systems, apply specified dosage per acre. Follow all directions under the GENERAL CHEMIGATION section of this label. * For control of pea aphid and other alfalfa pests, use Imidan in tank mix combination with other insecticides registered for use on alfalfa. ** Recommended for potato leafhopper in the Northeast and North Central States only.
	• Do not apply more than once per cutting. • Do not apply to alfalfa in the bloom period. • Do not use with latex or pineolene-based adjuvants or any agricultural sticker or extender. • In Arizona, California, and Nevada, do not graze or cut for hay within 14 days of application. • In all other alfalfa growing regions, do not graze or cut for hay within 7 days of application.		
COTTON (Except San Joaquin Valley, CA) (21)	Overwintering generation of Boll Weevil	1/3 - 3/4 (ground) 3/4 (air)	Apply in a minimum of 5 gals. of water for ground applications or in a minimum of 3 gals. of water for aerial applications. For overwintering boll weevils, make 2 applications. The first application should be made at the 1/3 grown square stage and the second 5 to 7 days later. Use the higher rate under heavy infestations. For first, second, and third generation boll weevil, make applications at intervals from 3 to 7 days depending upon weevil population and weevil migration in fields. Use the higher rates for heavy infestations. Check infestations regularly.
	First, second, or third generation Boll Weevil	1 - 1 1/3	
	• Do not exceed 14 lbs. of Imidan 70-W per acre per season. • Do not graze or feed forage to livestock. • Use on cotton prohibited in Copiah and Clairborne Counties, MS; Lauderdale and Madison Counties, AL; and Lawrence County, TN. • Do not apply within one mile of coastal or estuarine waters. • Do not apply within 100 feet of aquatic habitats.		
FIELD MARGINS (margins of cultivated fields and forage crop sites listed on this label)	Grasshopper	2 1/8 - 2 3/4	Apply in 10 - 50 gals. of water per acre (20 - 50 gals. in dense stands) by ground equipment or in 5 - 10 gals. of water by aircraft.
	• Do not graze livestock in treated areas. • Do not harvest for food or feed.		
PEAS, Fresh and Dry (Pacific Northwest only) (7)	Pea Weevil, Pea Leaf Weevil	1 - 1 1/3	Apply in a minimum of 5 gals. of water per acre by aircraft or 20 gals. of water by ground equipment. Apply between emergence and early pod formation when adult populations are present but before eggs are laid. Consult your local County Agent or Extension Service Representative regarding proper timing of application.
	• Do not apply more than 4 lbs. Imidan 70-W per acre per crop season. • Do not graze or feed forage to livestock within 7 days of harvest. • Do not cut treated fresh pea forage for hay within 10 days of application.		
POTATOES (7)	Colorado Potato Beetle, European Corn Borer, Potato Flea Beetle, Potato Leafhopper	1 1/3	Apply in a minimum of 2 gals. of water per acre. Repeat applications as necessary throughout the growing season with a minimum of 10 days between applications. For application by irrigation systems, apply specified dosage per acre. Follow all directions under the CHEMIGATION section of this label.
	• Do not apply more than 6 2/3 lbs. Imidan 70-W per acre per crop season. • Use only on potatoes to be harvested by machine.		
SWEET POTATOES (7)	Sweet Potato Weevil, Banded Cucumber Beetle, Whitefringed Beetle, suppression of White Grub and Wireworm	1 1/3	Foliar applications: Apply 1 1/3 lbs. of Imidan 70-W in a minimum of 2 gallons of water per acre as a full coverage spray. Plantbed treatment: Apply 1 1/3 lbs. in 25-50 gallons of water per acre. Allow a minimum of 10 days between foliar and plantbed re-applications.
	• Do not make more than 5 applications per season. • Do not apply within 7 days of harvest. • Do not apply more than 6 2/3 lbs. of Imidan 70-W per acre per crop season. • Use only on sweet potatoes to be harvested by machine.		

SHADE AND ORNAMENTAL TREES AND WOODY EVERGREENS

Imidan 70-W is recommended for use by commercial applicators on deciduous shade and ornamental trees and woody evergreens in parks and recreational areas, along thoroughfares, and other localized areas where infestations occur.

CROP	PEST	USE RATE	COMMENTS
DECIDUOUS SHADE and ORNAMENTAL TREES, and WOODY EVERGREENS (such as Ash, Arborvitae, Beech, Cedar, Dogwood, Fir, Hemlock, Juniper, Magnolia, Maple, Oak, Pine, Spruce, Willow, Hickory, Locust, Liquidambar, Hawthorne, Birch, Elm and Yew)	Elm Spanworm, Birch Leafminer, Eastern Tent Caterpillar, Elm Leaf Beetle larvae, Gypsy Moth, Leafhopper, Magnolia Leafminer, Mealybug, Japanese Beetle, Redhumped Caterpillar, Spring Cankerworm	¾ - 1 lb. per 100 gals.	Apply when insects or their damage occur. Thoroughly wet all parts of the affected plants to the point of runoff. For heavy infestations, use the higher dosage rate. Repeat application as necessary to maintain insect control. Choose a cool calm period, preferably in early morning or evening.
	• Do not apply if rain is expected or before leaf surfaces are dry.		
CHRISTMAS TREE PLANTATIONS	Eastern Pine Shoot Moth, European Pine Shoot Moth, Gypsy Moth, Nantucket Pine Tip Moth, Pitch Eating Weevil, Pales Weevil, Adult Root Collar Weevil, Sawfly	1 ⅓ - 1 ½ lbs. per acre	Apply in sufficient water to achieve thorough and complete coverage through aerial or ground application equipment. Apply when pest populations reach economic threshold levels as determined by the local Extension Service, Forest Service, or other monitoring system.
PINE TREES (Pacific Northwest only)	European Pine Shoot Moth *(Rhyacionia buoliana)*	1 ⅓ - 1 ½ lbs. per acre **OR** for individual trees 1 ⅓ lbs. per 100 gals.	Spray trees for thorough coverage of foliage. Repeat at 2 week intervals throughout flight period of the moths.
PINE SEEDLINGS (White, Slash and Loblolly)	Pales Weevil *(Hylobius pales)*, Pitch Eating Weevil *(Pachylobius picivorus)*	4% Top Dip Solution To make / Use this amount of Imidan 70-W 5 gals. — 2½ lbs. 30 gals. — 14 lbs. 50 gals. — 24 lbs. 100 gals. — 48 lbs.	Use Imidan 70-W as a 4 % top dip, dipping down to and including root collar only. Dip in bundles loose enough to allow solution to penetrate the bundles. Avoid coverage of roots. Swish tops in solution for 10 to 15 seconds to assure adequate coverage of all top growth. Drain and allow seedlings to dry before planting. The addition of an extender such as Nu-Film 17® may help retain the Imidan 70-W on the foliage under high rainfall conditions. Some slight needle burn and first year growth reduction may occur on treatment of loblolly pine. Agitate frequently to keep Imidan 70-W in suspension. Five gals. of solution should be enough to treat 10,000 seedlings.
	• Do not keep Imidan solution overnight. Make up a fresh batch each day that seedlings will be dipped.		

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

STORAGE: Store in a cool, dry place.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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.

SPILL OR LEAK: A small spill can be handled routinely. Use adequate ventilation and wear an air-supplied respirator to prevent inhalation. Wear suitable protective clothing and eye protection to prevent skin and eye contact. Use the following procedures:

1. Sweep up spilled material being careful not to create dust.
2. Place sweepings in an open drum.
3. Generously cover the contaminated areas with a common household detergent. Using a stiff brush and small amounts of water, work the detergent into the spill material forming a slurry. Do not splatter on one's self or bystanders. Completely avoid skin and eye contact with this material. Brush the slurry into cracks and crevices and allow to stand for 2 - 3 minutes.
4. Spread a suitable absorbent such as clay, sawdust, or kitty litter on the slurried liquid. Shovel absorbed material into an open drum.
5. Repeat if necessary.
6. Flush area with water while observing proper environmental considerations. Seal drum and dispose of contaminated material in an approved pesticide landfill.

Large spills must be handled according to a predetermined plan. For assistance in developing a plan, contact Gowan Company.

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

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 practices. The buyer assumes all responsibility including injury or damage, resulting from its misuse as such, or in combination with other materials.

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