

707-277

5/4/2001

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INTREPID™ 2F

AGRICULTURAL INSECTICIDE



ROHM HAAS
PHILADELPHIA, PA 19106
Tel: (215) 592-3000

ACTIVE INGREDIENT

Methoxyfenozide

Benzoic acid, 3-methoxy-2-methyl-, 2-(3,5-dimethylbenzoyl)-2-(1,1-dimethylethyl) hydrazide

INERT INGREDIENTS.....

TOTAL.....

ACCEPTED

MAY 4 2001

Under the Federal Insecticide, Fungicide, and Rodenticide Act or amendments to the pesticide registration laws of 1972, Reg. No. 707-277

2.6%
7.4%
100.0%

EPA REG. NO. 707-277

EPA EST. NO. 39578-TX-01

Not Registered for Use in the States of Arizona, California, Florida or New York

NOTICE: Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty, Directions for Use, Use Restrictions and Storage and Disposal Instructions. If the Conditions of Sale and Warranty are not acceptable, return the product unopened within thirty days of purchase to the place of purchase.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

FIRST AID	
If on skin or clothing	<ul style="list-style-type: none"> Take off contaminated clothing Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If Inhaled	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
If in eyes	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-215-592-3000, day or night, for emergency medical treatment information.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through skin or inhaled. Avoid contact with eyes, skin or clothing. Avoid breathing spray mist. Wear long-sleeved shirt and long pants, socks and shoes and waterproof gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

NET CONTENTS: 2.5 GALLONS (9.46L)

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Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standards (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.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove contaminated clothing and wash clothing before reuse.

ENVIRONMENTAL HAZARDS

Drift and runoff from applications of this product may be hazardous to sensitive aquatic invertebrates in water bodies adjacent to the treatment area. For terrestrial uses, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Methoxyfenozide can contaminate surface water through spray drift. Under some conditions, methoxyfenozide may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to overlying tile drainage systems that drain to surface water.

Do not cultivate within 10 feet of aquatic areas to allow growth of a vegetative filter strip.

Do not apply by ground within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes, or natural ponds; estuaries and commercial fish farm ponds.

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), notification to workers 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 4 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 over long-sleeved shirt and long pants
- Water-proof gloves
- Socks and chemical resistant footwear

STORAGE AND DISPOSAL

STORAGE: Store in a cool dry well-ventilated area, but not below 32°F.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are toxic. 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: Triple rinse (or equivalent). Then puncture and dispose of in a sanitary landfill, by incineration or if allowed by State and local authorities, by burning. If burned stay out of smoke.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Appropriate protective equipment must be worn when handling a spill of this material. Transfer spilled material to suitable containers for recovery or disposal. Contain spills immediately with inert materials (e.g. sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal. Keep spills and cleaning runoff out of municipal sewers and open bodies of water. Refer to Precautionary Statements.

CONDITIONS OF SALE AND WARRANTY

Rohm and Haas warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. **ROHM AND HAAS MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE.** Handling, storage and use of the product by Buyer or User are beyond the control of Rohm and Haas and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pest, drift to other crops or property or failure to follow label directions will be assumed by the Buyer or User. **IN NO CASE WILL ROHM AND HAAS OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.**

GENERAL INFORMATION

INTREPID 2F Agricultural Insecticide belongs to the diacylhydrazine class of insecticides and has a novel mode of action that mimics the action of the molting hormone of Lepidopterous (moths, butterflies) larvae.

Upon ingestion, larval stages of the order Lepidoptera undergo an incomplete and developmentally premature molt which is ultimately lethal. This process interrupts and rapidly halts their feeding. Feeding typically ceases within hours of ingestion although complete mortality of the larvae may take several days. Affected larvae often become lethargic and develop discolored areas or bands between segments.

INTREPID 2F has virtually no effect on any order of insects or Arthropods except the Lepidoptera, making it an ideal tool for Integrated Pest Management. This selectivity allows beneficial insects (including bees) and other Arthropods to function unimpeded in the management of secondary pests while INTREPID 2F provides control of troublesome Lepidoptera pests.

USE RATE DETERMINATION

Carefully read, understand and follow label use rates, recommendations and restrictions. Apply the amount specified in the following tables with properly calibrated aerial or ground spray equipment. Prepare only the amount of spray solution required to treat the measured acreage. The low rates may be used for light infestations of the target lepidopterous species and the higher rates for moderate to heavy infestations. INTREPID 2F Agricultural Insecticide may be applied in either dilute or concentrate sprays so long as the application equipment is calibrated and adjusted to deliver thorough, uniform coverage. Use the specified amount of INTREPID 2F per acre regardless of the spray volume used.

MIXING AND COMPATIBILITY

Fill the spray tank one-third to one-half full of clean water and slowly pour INTREPID 2F Agricultural Insecticide into the spray tank. Maintain agitation in the spray tank during mixing, loading and application. Triple-rinse empty container and add rinsate to the spray tank.

INTREPID 2F Agricultural Insecticide is believed to be compatible with most commonly used agricultural fungicides, insecticides, growth regulators, foliar fertilizers and spray adjuvants. If in doubt, mix proportional amounts of all spray ingredients in a test vessel. Shake the mixture vigorously and allow it to stand for fifteen minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied.

SPRAY ADJUVANTS

The addition of agricultural adjuvants to INTREPID 2F Agricultural Insecticide sprays will improve initial spray deposits, redistribution and weatherability. The following spray adjuvants have been especially formulated to optimize the performance of foliar-applied agricultural chemicals:

- LATRON B-1956 -A water-dispersible, resin-based nonionic spreader-sticker that resists re-wetting and removal by rain. Effective with dilute sprays applied by ground equipment.
- LATRON CS-7 -A spreader-binder designed specifically for use in concentrate and low volume sprays applied by aircraft or ground equipment.

APPLICATION TIMING

The activity of INTREPID 2F Agricultural Insecticide is expressed primarily through ingestion by the target larvae. Consequently, the timing of application is dependent on the feeding behavior of the target pest. For cryptic (internal) feeding larvae, application must be made prior to the time that surface feeding occurs i.e., just prior to initiation of egg hatch. For foliar or surface feeding larvae, application may be made while active feeding is occurring.

Re-application may be required to protect new flushes of foliage, rapidly expanding fruit or for extended infestations. The re-application interval will vary depending on how rapidly the crop is growing, the generation time of the target pest and the duration of the infestation.

INTREPID 2F Agricultural Insecticide is effective against all larval instars; however, it is good practice to make applications to early instars to minimize feeding damage. For best results, begin applications when threshold levels of moths, eggs or larvae occur. Consult the Cooperative Extension Service, or other qualified professional authorities to determine the appropriate threshold and timing for application in your area.

APPLICATION INSTRUCTIONS

INTREPID 2F Agricultural Insecticide must be ingested by insect larvae to be fully effective. Applications must be in a manner that assures uniform and thorough coverage. Higher water volume and increased spray pressure generally provide better coverage.

When using an airblast sprayer, coverage is also improved by operation of the sprayer at ground speeds that assure that the air volume within the tree canopy is completely replaced by the output from the airblast sprayer. Making applications in an alternate row middle pattern may result in less than satisfactory coverage and poor performance in conditions of high pest infestation levels, extremely large trees and/or dense foliage.

To avoid drift and achieve maximum performance of this product, make ground applications when the wind velocity favors on-target product depositions (3-10 mph). Do not apply when wind velocity exceeds 10 mph. Shut off the sprayer when turning at row ends. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind directions are toward the aquatic area.

A minimum of six hours drying time is required between the completion of application and the onset of precipitation to ensure retention of the spray deposit.

RESISTANCE MANAGEMENT

Any insect population may contain individuals that are naturally resistant to a specific pesticide, therefore, the use of any one insecticide against many consecutive generations of pest can result in the development of resistance problems. To prevent or delay the development of resistance, Rohm and Haas Company recommends rotation of INTREPID 2F with insecticides of alternate modes of action and the utilization of Integrated Pest Management practices such as routine monitoring, the use of treatment thresholds to time applications and cultural and biological controls wherever possible. We further recommend that INTREPID 2F not be used on more than three consecutive generations of a pest. Since the development of resistance cannot be predicted, we suggest that you consult local or State Extension personnel or your local Rohm and Haas Company representative for resistance management guidance appropriate to your crop, locality and production practices.

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CHEMIGATION

Do not apply this product through any type of irrigation system.

ENDANGERED SPECIES

Do not use this product in Door County in the State of Wisconsin.

Do not apply this product within One mile of sandy habitats that support wild lupine plants in the following States/Counties:

MICHIGAN

Allegan
Monroe
Montcalm
Muskegon
Newaygo
Oceana

WISCONSIN

Adams Juneau Sauk
Burnett Marquette Shawano
Chippewa Menominee Trempeleau
Clark Monroe Waupaca
Dunn Oconto Waushara
Eau Claire Outagamie Wood
Green Lake Polk
Jackson Portage

ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted at intervals defined below following the final application of INTREPID 2F at recommended rates for a registered use.

CROP	RE-CROPPING INTERVALS (DAYS)
Cotton	No restrictions
Leafy vegetables (except Brassica vegetables) and Root and Tuber vegetables	356 days
All other crops	Prohibited

Note: When using INTREPID 2F with other registered pesticides, always refer to rotational restrictions and precautions on the other product label(s) and comply with the most restrictive rotational guidelines.

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USE DIRECTIONS FOR COTTON

Ground Application: Make applications by conventional ground sprayers which are calibrated to deliver a minimum of 5 gallons per acre.

Aerial Application: Make applications in a minimum of 2 gallons per acre. Use of higher carrier volume is recommended for heavy infestations and in situations where thorough coverage is difficult to achieve.

Spray Adjuvants: The use of LATRON CS-7 spreader-binder or similar spreader-binder following the manufacturer's labeling is recommended to maximize coverage and retention of the spray material.

TARGET PESTS	APPLICATION RATE Fluid Ounces per Acre	APPLICATION TIMING	RESTRICTIONS
Beet Armyworm Cabbage Looper Cotton Leafworm Cotton leaf perforator Fall Armyworm Saltmarsh caterpillar Southern Armyworm Soybean Looper True Armyworm Yellowstriped armyworm	4.0 to 10.0 (0.06 - 0.16 lb. ai/acre)	Apply at egg hatch or when first signs of feeding occur. Use the higher rates for heavier infestations and under conditions in which thorough coverage is more difficult. Under heavy infestations, continuous moth flights and/or egg masses and larvae in all stages of development, reapplication on a 10 - 14-day schedule will be required to protect new growth until moth flights and/or hits subside.	Do not apply more than 64 fluid ounces product per season. Allow at least 14 days to elapse between final application and harvest. See ROTATIONAL CROP RESTRICTIONS in the body of this label.
Cotton Bollworm Tobacco Budworm	16.0 to 24.0 (0.25 - 0.38 lb. ai/acre)	For bollworms, budworms and other internal feeding larvae, initiate applications when larval infestations on the terminals reaches 2 to 4 %. Retreat when larval reinfestation reaches 4% or 2 worms per 25 plants	For resistance management purposes, do not make applications of INTREPID 2F to more than two consecutive generations of cotton bollworms or tobacco budworm in a single season.

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USE DIRECTIONS FOR POME FRUIT

(Apples, Crabapples, Loquat, Mayhaw, Pears including oriental, Quince)

Ground Application: Make applications of INTREPID 2F Agricultural Insecticide by conventional ground sprayers which are calibrated to deliver a minimum of 50 gallons per acre to trellised trees or trees 10 feet tall or less. For trees greater than 10 feet tall use a minimum of 100 gallons per acre.

Aerial Application: Make applications of INTREPID 2F in a minimum of 20 gallons per acre. INTREPID 2F can be applied by aerial applications when conditions warrant. However this method should not be used if the size of the tree or density of the foliage prohibits thorough, uniform coverage of the entire tree canopy.

Spray Adjuvants: The use of a Spreader-Sticker such as LATRON B-1956 or similar spreader-sticker is highly recommended to maximize coverage and retention of the spray material.

TARGET PESTS	APPLICATION RATE Fluid Ounces per Acre	APPLICATION TIMING	RESTRICTIONS
Codling moth (West of the Rockies) For use against low to moderate infestations in conjunction with alternate control measures such as in established mating disruption blocks.	16 (0.25 lb. ai/acre)	For each codling moth generation, apply at the initiation of egg lay* followed by a second application 10 to 18 days following the first application. Best protection is achieved when applications are initiated before egg hatch of each generation and before the larvae penetrate the fruit. Once applied, INTREPID provides 10 to 18 days of protection depending on application rate and how rapidly fruit is expanding. Consult local spray timing advisories for INTREPID or follow biofix dates based on pheromone trap catches to time sprays appropriately.	Do not apply more than 64 oz product per acre per season. Allow at least 14 days to elapse between final application and harvest
Codling moth (East of the Rockies)	12 to 16 (0.15 to 0.25 lb. ai/acre)	For heavy infestations or continuous moth flight and egg laying, use the highest labeled rate and maintain coverage on the fruit surface with timely reapplication at 10 to 18 day intervals. Use of INTREPID may be interspersed or alternated with other insecticides targeted at the same pest so long as the interval between applications does not exceed the period of effectiveness of the products being alternated and so long as INTREPID is applied before larvae penetrate into the fruit. *initiation of egg lay usually occurs at 100-200 Day degrees [DD], base 50°F, following biofix ¹	Aerial application is allowed only for the last two applications prior to harvest.
Lesser appleworm Oriental fruit moth	12 to 16 (0.15 to 0.25 lb. ai/acre)	For control of light to moderate infestations, begin applications before egg hatch of each generation and before the larvae penetrate the fruit. Once applied, INTREPID provides 10-18 days of protection depending on application rate and how rapidly fruit is expanding. Consult local spray timing advisories for INTREPID or follow biofix dates based on pheromone trap catches to time sprays appropriately. For continuous moth flight and egg laying, use the highest labeled rate and maintain coverage on the fruit surface with timely reapplication at 10-18 day intervals. Use of INTREPID may be alternated or interspersed with other insecticides targeted at the same pest so long as the interval between applications does not exceed the period of effectiveness of the products being alternated and so long as INTREPID is applied before larvae penetrate into the fruit.	

¹ Biofix is defined as first sustained adult catch in pheromone traps. Consult State Extension Specialists or other qualified authorities for specific information regarding number, placement and management of pheromone traps to establish sustained moth catch.

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TARGET PESTS	APPLICATION RATE Fluid Ounces per Acre	APPLICATION TIMING	RESTRICTIONS
Obliquebanded leafroller Pandemis leafroller	8 to 16 (0.12 to 0.25 lb. ai/acre)	Spring (overwintering) generation: Make 1 to 2 applications during the pink to petal fall period depending on infestation level. Summer generation: Make the first application during the period of peak egg lay to early egg hatch (usually 200-400 DD following biofix). Make a second application 10 to 18 days later (usually 500-700 DD). The higher rates in the recommended rate range and additional applications at 10-18 day intervals may be required for heavy infestations, sustained moth flight, or situations in which it is difficult to achieve thorough coverage and for quicker knockdown of larvae.	
Redbanded leafroller Fruittree leafroller Variegated leafroller Eyespotted bud moth	8 to 16 (0.12 to 0.25 lb. ai/acre)	For control of surface or foliar feeding leafroller larvae, application can be made at any time larvae are feeding. Most effective crop protection results from application made at the initiation of egg hatch. For heavy infestations, continuous moth flights or extended egg hatch, use maximum recommended rates and reapply on a 10 to 18-day interval to maintain control.	
Tufted apple bud moth	6 to 10 (0.09-0.16 lb. ai/acre)	For each generation make an application at 10 to 30% egg hatch. A second application 10-18 days later may be required for heavy infestations, sustained moth flight or for extended residual effectiveness.	
Spotted tentiform leafminer Western tentiform leafminer	8 to 12 (0.12 to 0.18 lb. ai/acre)	First generation: Apply at pink to petal fall. Second, third generation: Begin applications at early egg hatch for each generation	
Lacanobia fruitworm	12 (0.18 lb. ai/acre)	Apply at initiation of egg hatch or at the first sign of larval infestation. A second application may be required 10-14 days following the first application to ensure complete coverage of rapidly expanding fruits or foliage.	

INTREPID, LATRON B-1956 & CS-7 ARE TRADEMARKS OF ROHM AND HAAS COMPANY
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