

Mr. John S. Thornton
Mobay Corporation
Agricultural Chemicals Division
P.O. Box 4913
Kansas City, MO 61420-0013

AUG - 2 1991

Dear Mr. Thornton:

Subject: Amendment (Minor Labeling Change - Addition of Two New Pests)
BAYTHROID 2 Insecticide
EPA Registration Number 3125-351
Your Submission Dated April 25, 1991

The labeling referred to above, submitted in connection with
registration under the Federal Insecticide, Fungicide, and Rodenticide
Act, as amended, is acceptable. A stamped copy is enclosed for your
records.

Sincerely yours,

George T. LaRocca
Product Manager (13)
Insecticide-Rodenticide Branch
Registration Division (H7505C)

Enclosure

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63249:I:A-4:Moats:L13-15;KEVRIC:07/30/91;08/30/91:rj:wo:rj

CONCURRENCES

| | | | | | | | | |
|---------|--|--|--|--|--|--|--|--|
| SYMBOL | | | | | | | | |
| SURNAME | | | | | | | | |
| DATE | | | | | | | | |

RESTRICTED USE PESTICIDE

Toxic to Fish and Aquatic Organisms

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.

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BAYTHROID® 2

EMULSIFIABLE PYRETHROID INSECTICIDE

FOR CONTROL OF INSECT PESTS ON COTTON

Contains 2 pounds Cyano(4-fluoro-3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate per gallon

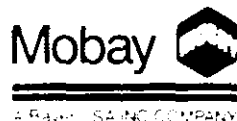
EPA Reg. No. 3125-351
EPA Est. 3125-MO-1

STOP — READ THE LABEL BEFORE USE.

PELIGRO

PRECAUCION AL USUARIO: Si usted no puede leer o entender inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

(TO THE USER: If you cannot read or understand English, do not use this product until the label has been fully explained to you.)



Mobay Corporation
Agricultural Chemicals Division
Box 4913, Kansas City, MO 64120

ACTIVE INGREDIENT:

Cyano (4-fluoro-3-phenoxyphenyl)
methyl 3-(2,2-dichloroethenyl)-2,2-
dimethylcyclopropanecarb-
oxylate 25%
INERT INGREDIENTS 75%
100%

(This product contains aromatic petroleum distillates.)

U.S. Patent No. 4,218,469

Canadian Patent No. 1,113,477

KEEP OUT OF THE REACH OF CHILDREN.

DANGER

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Causes eye damage. May be fatal if inhaled. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Do not breathe vapors, or spray mist.

Do not contaminate feed or food. Keep out of reach of children.

Wear goggles, face shield, or safety glasses. Wash hands, arms, and face thoroughly with soap and warm water after handling. Remove and wash contaminated clothing with soap and hot water before reuse.

SYMPTOMS OF POISONING

In case of poisoning, call a physician immediately. Have patient lie down and keep quiet.

STATEMENTS OF PRACTICAL TREATMENT

If eyes are contaminated, flush with plenty of water. Get medical attention. If swallowed, do not induce vomiting. Call a physician. Gastric lavage should be supervised by a physician or professional medical staff because of possible pulmonary damage via aspiration of the solvent. If on skin, wash skin immediately with soap and warm water. If irritation occurs, get medical attention. If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

TO PHYSICIAN: No specific antidote is available. Treat symptomatically.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water or wetlands (swamps, bogs, marshes and potholes). Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops if bees are visiting the treatment area. Additional information may be obtained by consulting your Cooperative Extension Service.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

MANUFACTURER'S RECOMMENDATIONS FOR USE OF BAYTHROID 2 EMULSIFIABLE PYRETHROID INSECTICIDE

DIRECTIONS FOR USE

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

IMPORTANT: Read these entire Directions for Use and Conditions of Sale before using BAYTHROID 2 emulsifiable pyrethroid insecticide.

CONDITIONS OF SALE: THE DIRECTIONS ON THIS LABEL WERE DETER-

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MINED THROUGH RESEARCH TO BE THE DIRECTIONS FOR CORRECT USE OF THIS PRODUCT. THIS PRODUCT HAS BEEN TESTED FOR A RANGE OF WEATHER CONDITIONS SIMILAR TO THOSE WEATHER CONDITIONS THAT ARE ORDINARY AND CUSTOMARY IN THE GEOGRAPHIC AREA WHERE THE PRODUCT IS USED. INSUFFICIENT CONTROL OF PESTS AND/OR INJURY TO THE CROP TO WHICH THE PRODUCT IS APPLIED MAY RESULT FROM THE OCCURRENCE OF EXTRAORDINARY OR UNUSUAL WEATHER, OR FROM FAILURE TO FOLLOW LABEL DIRECTIONS. IN ADDITION, FAILURE TO FOLLOW LABEL DIRECTIONS MAY CAUSE INJURY TO OTHER CROPS, ANIMALS, MAN OR THE ENVIRONMENT. MOBAY OFFERS, AND THE BUYER ACCEPTS AND USES, THIS PRODUCT SUBJECT TO THE CONDITIONS THAT EXTRAORDINARY OR UNUSUAL WEATHER, OR FAILURE TO FOLLOW LABEL DIRECTIONS ARE BEYOND THE CONTROL OF MOBAY AND ARE, THEREFORE, THE RESPONSIBILITY OF THE BUYER.

BAYTHROID 2 emulsifiable pyrethroid insecticide may be used for control of a broad spectrum of insect pests by contact action. Because of this contact activity, good spray coverage of the crop is needed for the highest level of control.

USE IN CHEMIGATION SYSTEMS

Types of Irrigation Systems: Apply BAYTHROID 2 only through sprinkler, including center pivot, lateral move, side roll, or overhead solid set irrigation systems. Do not apply BAYTHROID 2 through any other type of irrigation system.

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 specialists, equipment manufacturers or other experts.

Chemigation Monitoring: 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.

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

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 valve to prevent the flow of fluid back toward the injection pump.

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

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

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

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

Using Water from Public Water Systems: DO NOT APPLY BAYTHROID 2 THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

BAYTHROID 2 may be applied through any of the recommended types of irrigation systems which may be supplied by a public water system only if the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure the air gap exists and that there is no blockage of the overflow of the reservoir tank.

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

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

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

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or in cases where there is 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) 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, inpatient 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 area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2"

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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.

Posting required for chemigation does not replace other posting and reentry interval requirements for farmworker safety.

Agitation: For application of BAYTHROID 2 alone, a chemical supply tank is not necessary for premixing since BAYTHROID 2 mixes well with water in the irrigation line. If a chemical supply tank is used for application of BAYTHROID 2, constant strong mechanical or hydraulic agitation must be maintained in the chemical supply tank during the entire period of application.

Chemical Supply Tank Dilution: If a chemical supply tank is used, you must determine the required amounts of BAYTHROID 2 and water to mix in the tank.

The amount of BAYTHROID 2 needed equals the number of fluid ounces of BAYTHROID 2 to be applied per acre multiplied by the number of acres to be chemigated.

The amount of emulsion needed equals the gallons of emulsion delivered per hour by the injection pump multiplied by the number of hours chemigation will take place.

The amount of water needed equals the amount of emulsion needed minus the amount of BAYTHROID 2 needed.

For example, if you want to apply 1.6 fluid ounces of BAYTHROID 2 per acre to 130 acres in 20 hours and your irrigation pump delivers 15 gallons per hour, you need: 1.6 fluid ounces of BAYTHROID 2 \times 130 acres = 208 fluid ounces or 13 pints of BAYTHROID 2. And, you need: 15 gallons per hour \times 20 hours = 300 gallons of emulsion, minus 1.625 gallons (13 pints) of BAYTHROID 2 = 298.375 gallons of water.

Cleaning the Chemical Injection System: In order to accurately apply pesticides, the chemical injection system must be kept clean; free from chemical or fertilizer residues and sediments. Refer to your owners manual or ask your equipment supplier for the 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 before turning off irrigation water. To ensure lines are flushed and free of pesticides, a indicator may be injected into the lines to mark the end of the application period.

SPRINKLER IRRIGATION SYSTEMS

All directions and requirements listed under the GENERAL DIRECTIONS AND REQUIREMENTS FOR ALL RECOMMENDED TYPES OF IRRIGATION SYSTEMS section of this label must be followed for sprinkler irrigation systems.

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

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

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

Center-Pivot and Automatic-Move Linear Systems: Inject the specified dosage per acre continuously for one complete revolution or move of the system. DO NOT USE END GUNS. The system should be run at maximum speed.

Solid Set and Manually Controlled Linear Systems: Injection should be during the last 30 to 60 minutes of a regular irrigation period or as a separate 30- to 60-minute application not associated with a regular irrigation. DO NOT USE END GUNS.

CROP ROTATION STATEMENT

Treated areas may be replanted with any crop as soon as practical after last application.

REENTRY STATEMENTS

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings should include those statements found under the label heading "Precautionary Statements" and "Re-entry Statements" included on this label. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: DANGER, area treated with BAYTHROID 2 on (date of application). Do not enter without

appropriate protective clothing until sprays have dried. If eyes are contaminated, wash with plenty of water. Get medical attention immediately. If on skin, remove contaminated clothing and wash skin immediately with soap and warm water. If swallowed, do not induce vomiting. Call a physician. (See Precautionary Statements on label.)

STORAGE AND DISPOSAL

Pesticide Disposal: Do not contaminate water, food or feed by storage or 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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Store in a cool, dry place and away from open flame and extreme heat. Store in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking invert to prevent leakage. If the container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides above. In spill or leak incidents, keep unauthorized people away. You may contact the Mobay Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Mobay Kansas City Emergency Response Telephone No. is 816-42-2582, or contact Chemtrec at 800-424-9300.

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RECOMMENDED APPLICATIONS

| CROP | PEST | DOSAGE | | REMARKS |
|--------|--|--------------------|-----------------------------|---|
| | | Pounds AI Per Acre | BAYTHROID 2 Fl Ozs Per Acre | |
| Cotton | Beet armyworm Fall armyworm Thrips Soybean looper | 0.05 | 3.2 | Apply specified dosage per acre as needed in sufficient water, at least one gallon, for thorough coverage of foliage. Applications may also be made with ground or aircraft equipment adapted and calibrated for ULV application. BAYTHROID 2 may be mixed with once-refined vegetable oil and applied in a total volume of at least one quart per acre. |
| | Boll weevil Cotton bollworm Tobacco budworm Cabbage looper Cotton aphid Lygus bugs Flea beetles Pink bollworm Flea hoppers <i>Heliothis</i> (Bollworm/ Budworm) Ovicidal | 0.025 to 0.05 | 1.6 to 3.2 | For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label. Timing of applications should be based on careful scouting and local economic thresholds. A 3 to 5 day application schedule may be required to maintain control of heavy boll weevil infestations. Lower dosage rates are adequate for low to moderate insect pressure, but require careful scouting and may require more frequent applications. Ask your supplier for more detailed information for your area. |
| | Leafworm Cotton leafperforator | 0.0125 to 0.025 | 0.8 to 1.6 | For armyworm control, careful scouting and early detection are necessary. Subsequent applications are necessary to maintain control. |
| | | | | |

For cotton aphid, thorough coverage under light infestation pressure is necessary to achieve control. Under heavy infestation pressure a systemic insecticide may be necessary.

For maximum contact *Heliothis* ovicidal effect, time application to correspond to peak egg deposition.

A total of 32 fluid ounces of BAYTHROID 2 per acre may be applied per crop season.

Do not graze treated fields.

Applications may be made up to day of harvest.

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

Do not make aerial or ground applications during temperature inversions.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph).

Do not apply when wind velocity exceeds 15 mph.

Do not apply by ground within 25 feet, or by air within 75 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

For aerial applications, the spray boom must be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. Boom length must not exceed 75% of wing span or rotor diameter.

Do not make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Cymbush®, Karate®, Pounce®, and Scout®.

RATE CONVERSION CHART:

| Lb. AI/A | Fl Oz/A | Acres Treated: | |
|----------|---------|----------------|-----|
| | | /Gal | /Pt |
| 0.0125 | 0.8 | 160 | 20 |
| 0.025 | 1.6 | 80 | 10 |
| 0.028 | 1.8 | 71 | 8.9 |
| 0.033 | 2.1 | 61 | 7.6 |
| 0.05 | 3.2 | 40 | 5 |

BAYTHROID is a Reg. TM of Bayer AG, Germany.

Ambush, Cymbush and Karate are Reg. TMs of ICI Americas, Inc.

Ammo, Capture and Pounce are trademarks.

Asana is a Registered trademark of E. I. duPont de Nemours & Co., Inc.

Scout is a Reg. TM of Roussel Uclaf.

USE ONLY
WITH SOIL APPLIED
IN IFA LATER DATES

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

3125-351



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