

PM 03

9-28-98

3125-351

10412



United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

256876

Application for Pesticide - Section I

1. Company/Product Number 3125-351	2. EPA Product Manager George LaRocca	3. Proposed Classification <input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted
4. Company/Product Name BAYTHROID 2 Emulsifiable Pyrethroid Insecticide	PM# Q3	
5. Name and Address of Applicant (Include ZIP Code) Bayer Corporation 8400 Hawthorn Road, P.O. Box 4913 Kansas City, MO 64120-0013 <input type="checkbox"/> Check. If this is its a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____	NOTIFICATION MAY 28 1998
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

See Attached

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted	If "Yes" Unit Packaging wgt. No. Per Container	If "Yes" Package wgt. No. Per Container			
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container	5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product		
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper Glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____					

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Charles W. Boyd		Title Senior Registration Scientist	
		Telephone No. (Include Area Code) (816) 242-2457	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			
2. Signature 		3. Title Director, Product Registrations & Regulatory Affairs	
4. Typed Name John S. Thornton		5. Date May 11, 1998	
6. Date Application Received (Stamped)			

Section II - Explanation

Bayer Corporation is submitting a **Notification** to clarify the directions in the Sorghum section of the Baythroid® 2 Emulsifiable Pyrethroid Insecticide label. In this case the current accepted label states "A total of 3 applications may be made per crop season. Allow at least 10 days between applications and at least 14 days between the last application and harvest of grain or dry forage." Bayer would like to replace the statement with the following "A maximum of 8.4 fl. oz./acre may be applied per crop season. No more than 2.8 fl. oz./acre may be applied in any 10 day period. Allow at least 14 days between the last application and harvest of grain or dry forage." We have also changed the following restrictions to be compatible with the changes above. The restrictions "If 1 or 2 applications are made, green forage may be grazed on the day of treatment. If 3 applications are made, allow at least 14 days between last application and grazing." Have been changed to "If 5.6 fl. oz./acre or less is applied, green forage may be fed or grazed on the day of treatment. If more than 5.6 fl. oz./acre is applied, allow at least 14 days between last application and grazing. The rate range for Sorghum midge has also been changed from 1.0 - 1.3 fl. oz./acre to 0.9 - 1.3 fl. oz./acre.

Enclosed is one copy of the product label, draft dated 5/11/98.

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351-9136.BLD

U. S. LABEL

Base Reg (9136)

Reason to Issue: To clarify ~~directions~~ for Sorghum.

Date of Draft: 05/11/98 (B)
Supersedes Draft Dated: 011/12/98

RESTRICTED USE PESTICIDE

Due to Toxicity 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.

Baythroid® 2

Emulsifiable Pyrethroid Insecticide

For control of insect pests on cotton and other crops.

ACTIVE INGREDIENT:

Cyano(4-fluoro-3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethyl-
cyclopropanecarboxylate 25%
INERT INGREDIENTS: 75%
100%

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

(This product contains aromatic parroleum distillates.)

U. S. Patent No. 4,218,469
Canadian Patent No. 1,113,477
EPA Reg. No. 3125-351

Net Contents: ____ Gallons

STOP - Read Label Before Use
KEEP OUT OF REACH OF CHILDREN

DANGER

PELIGRO

Si usted no entiende la ~~etiqueta~~, busque a
alguien para que se la ~~explique~~ a usted en
detalle.

(If you do not understand the label, find
someone to explain it to you in detail.)

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: 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. Prolonged or frequently repeated skin
contact may cause allergic skin reactions in
some individuals.

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

Personal Protective Equipment: Some

materials that are chemical-resistant to this
product are listed below. If you want more
options, follow the instructions for category G on
an EPA chemical-resistance category selection
chart.

- Applicators and other handlers must wear:
- Long-sleeved shirt and long pants
 - Chemical-resistant gloves, such as barrier
laminate or viton
 - Shoes plus socks
 - Protective eyewear

Text being added is highlighted by ~~highlighting~~

Text being deleted is highlighted by ~~strikeout~~

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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.

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.

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, to areas where surface water is present or to intertidal areas below the mean high water mark. 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.

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

AGRICULTURAL USE REQUIREMENTS Continued

(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 12 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
- Chemical-resistant gloves, such as barrier laminate or viton
- Shoes plus socks
- Protective eyewear

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BAYTHROID 2 Insecticide

IMPORTANT: Read these entire Directions and Conditions of Sale before using BAYTHROID 2 Emulsifiable Pyrethroid Insecticide.

CONDITIONS OF SALE: THE DIRECTIONS ON THIS LABEL WERE DETERMINED 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. BAYER 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 BAYER 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 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.

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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, 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 follow 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 2-1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

This sign is in addition to any sign posted to comply with the Worker Protection Standard.

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 X 130 acres = 208 fluid ounces or 13 pints of BAYTHROID 2. And, you need: 15 gallons per hour X 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 the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

SPRINKLER IRRIGATION SYSTEMS: All directions and requirements listed under the GENERAL DIRECTIONS AND REQUIREMENTS FOR ALL RECOMMENDED TYPES OF IRRIGATIONS 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.

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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.**

RECOMMENDED APPLICATIONS				
CROP	PEST	DOSAGE BAYTHROID 2		REMARKS
		lb AI/Acre	fl oz/Acre	
Cotton	Beet Armyworm (1st and 2nd instar only) Fall armyworm Leafminers Soybean looper Thrips Whiteflies (Suppression) Yellow-striped armyworm	0.05	3.2	<p>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.</p> <p>BAYTHROID 2 may be mixed with once-refined vegetable oil and applied in a total volume of at least one quart per acre.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>
	Tobacco budworm (SEE REMARKS)	0.025 to 0.04	1.6 to 2.6	<p>TOBACCO BUDWORM: Control of this insect may be affected by resistance to pyrethroid insecticides. See RESISTANCE statement elsewhere on this label.</p> <p>For all insects, timing of application should be based on careful scouting and local economic thresholds.</p> <p>A 3- to 5-day application schedule may be required to maintain control of heavy boll weevil infestations.</p>
	Boll weevil Cotton bollworm Tobacco budworm Cabbage looper Cotton aphid European corn borer Flea beetles Flea hoppers Garden webworm Lygus bugs Pink bollworm Saltmarsh caterpillar Southern garden leafhopper Stinkbugs Threecornered alfalfa hopper	0.025 to 0.04	1.6 to 2.6	<p>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.</p> <p>For armyworm control, careful scouting and early detection are necessary. Subsequent applications are necessary to maintain control.</p> <p>For cotton aphid, thorough coverage under light infestation pressure is necessary to achieve control. Under heavy infestation pressure a systemic insecticide may be necessary.</p> <p>For maximum contact ovicidal effect on bollworm/budworm, time application to correspond to peak egg deposition.</p> <p>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.</p>
	Ovicidal Effect: Bollworm/Budworm			<p>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® Insecticide, AMMO® Insecticide, ASANA® XL Insecticide, BAYTHROID® Emulsifiable Pyrethroid Insecticide, CAPTURE® Insecticide/Miticide, DANITOL® 2.4 EC Spray Emulsifiable Insecticide/Miticide, FURY® Insecticide, KARATE® Insecticide, MUSTANG® Insecticide, POUNCE® Insecticide, SCOUT® XTRA Insecticide, SynerGin® 2 Insecticide.</p>
	Cotton leaf-perforator Cutworms Leafworm	0.0125 to 0.025	0.8 to 1.6	
	Grasshoppers	0.031 to 0.044	2.0 to 2.8	

RESISTANCE: Some insects are known to develop resistance to insecticides used repeatedly on cotton. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or State authorities for details. If resistance to this product develops in your area, this product alone will not continue to provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor/state extension agent for the best alternative method of control in your area. Consult your state extension agent/agricultural advisor for insect resistance management strategies and recommended insect control methods in your area.

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RECOMMENDED APPLICATIONS				
CROP	PEST	DOSAGE BAYTHROID 2		REMARKS
		lb AI/Acre	fl oz/Acre	
Alfalfa (Except alfalfa grown for seed)	Alfalfa looper Cutworms (except Army Cutworm) Green cloverworm Meadow spittlebug Potato leafhopper	0.0125 to 0.025	0.8 to 1.6	Apply specified dosage per acre by air or ground equipment in sufficient water (minimum 2 gallons for aerial application) for thorough coverage of foliage. BAYTHROID 2 may also be applied by air with equipment adapted and calibrated for ULV application. BAYTHROID 2 may be applied with oil by ground equipment in a total volume of one quart per acre.
	Alfalfa plant bug Alfalfa weevil Alfalfa webworm Alfalfa caterpillar Army Cutworm Aster leafhopper Blue aphid * Corn earworm Egyptian alfalfa weevil Lygus Pea aphid * Tarnished plant bug	0.025 to 0.044	1.6 to 2.8	Applications should be based on local economic thresholds. Use the higher rates for moderate to heavy insect pressure. Lower rates are adequate for low to moderate insect pressure but require careful scouting and may require more frequent application. * When treating heavy aphid infestations, adequate control may not be achieved.
	Blotch leafminer Grasshoppers	0.031 to 0.044	2.0 to 2.8	One application may be made per cutting. A total of 11.2 fluid ounces per acre may be applied per season. Applications may be made up to seven days before harvest.
Sorghum	Chinch bug Fall armyworm False chinchbug Headworm Sorghum webworm Stinkbugs	0.02 to 0.044	1.3 to 2.8	Apply specified dosage per acre by air or ground in sufficient water for thorough coverage. Higher volumes of water will assure better coverage and may aid in control of pests such as chinch bug. For best control of chinch bug, applications should be directed at the basal portions of the plant.
	Cutworms Sorghum midge	0.015 to 0.02	1.0 to 1.3	Applications should be timed as pest populations reach threshold levels. A total maximum of 3 applications 8.4 fl oz/acre may be made applied per crop season. No more than 2.8 fl oz/acre may be applied in any 10 day period. Allow at least 10 days between applications and at least 14 days between the last application and harvest of grain or dry forage. If 1 or 2 applications are made 5.6 fl oz/acre or less is applied, green forage may be fed or grazed on the day of treatment. If 3 applications are made more than 5.6 fl oz per acre is applied, allow at least 14 days between last application and grazing.
	Cutworms	0.015 to 0.02	1.0 to 1.3	
	Grasshoppers	0.031 to 0.044	2.0 to 2.8	
Sweet corn	Chinch bug Common stalk borer Corn earworm Corn rootworm (adult beetles) European corn borer Southwestern corn borer True armyworm Western bean cutworm	0.025 to 0.044	1.6 to 2.8	Apply specified dosage per acre by air or ground equipment as needed in sufficient water, at least 3 gallons, for thorough coverage of foliage. BAYTHROID 2 may be mixed with sprayable vegetable oil and applied in a total volume of at least one quart per acre. For cutworms, apply as needed as a soil broadcast spray or as a band directed at the base of plants. Use the lower rate for Black cutworms under low or no trash conditions. Use the higher rate for other cutworms and high trash conditions, such as those existing under low or no till culture.
	Fall armyworm	0.044	2.8	
	Black cutworm Other cutworms including Granulate cutworm Sandhill cutworm	0.0125 to 0.025	0.8 to 1.6	Up to ten applications may be made per crop. A total of 28 fluid ounces may be applied per acre per crop season. Applications may be made up to and including day of harvest.
	Grasshoppers	0.031 to 0.044	2.0 to 2.8	

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RECOMMENDED APPLICATIONS				
CROP	PEST	DOSAGE BAYTHROID 2		REMARKS
		lb AI/Acre	fl oz/Acre	
Sunflower	Cutworm Sunflower beetle	0.0125 to 0.025	0.8 to 1.6	<p>Apply specified dosage per acre by air or ground equipment in sufficient water (minimum 2 gallons for aerial application) for thorough coverage of foliage and heads. Do not apply as an ultra low volume spray. For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p> <p>Timing of application should be based on careful scouting and local economic thresholds. Lower rates are adequate for low to moderate insect pressure. Use the higher rate for moderate to heavy pest pressure and longer residual control. Allow at least 7 days between applications. A total of 8.4 fl oz of BAYTHROID 2 per acre may be applied per crop season. Allow at least 30 days between last application and harvest. Do not graze or feed forage to livestock within 30 days after application.</p>
	Sunflower stem weevil (adults)	0.025 to 0.0375	1.6 to 2.4	
	Banded sunflower moth Grasshoppers Sunflower budmoth Sunflower headclipper weevil Sunflower midge Sunflower moth Sunflower seed weevil	0.031 to 0.044	2.0 to 2.8	
Sugarcane	Sugarcane borer	0.033	2.1	<p>Apply specified dosage per acre by air or ground equipment in sufficient water for thorough coverage of foliage (minimum of 2 gallons per acre by air and 20 gallons per acre by ground). BAYTHROID may also be applied by air with equipment adapted and calibrated for ULV application. BAYTHROID may be mixed with once-refined vegetable oil and applied in a total volume of one quart per acre.</p> <p>Timing of applications should be based on careful scouting and local economic thresholds. Ask your supplier for more detailed information for your area.</p> <p>Do not apply if soil is saturated with water. Do not apply under conditions that favor runoff. Do not apply in the rain.</p> <p>A total of 6 applications of BAYTHROID 2 may be made per crop season. Allow at least 7 days between applications and at least 15 days between last application and harvest.</p>
	Rice borer	0.044	2.8	
Carrots	Black cutworm	0.025	1.6	<p>Apply specified dosage per acre by air or ground equipment in sufficient water (minimum 2 gallons for aerial application) for good coverage. A total of five applications may be made per crop season. Allow at least 7 days between applications. Applications may be made up to and including day of harvest. Do not apply to crops grown for seed.</p>
	Aster leafhopper	0.025 to 0.044	1.6 to 2.8	
	Carrot weevil	0.044	2.8	
Peppers	Celery leaf tier Corn earworm European corn borer Garden webworm Pepper weevil Potato leafhopper	0.025 to 0.044	1.6 to 2.8	<p>Apply specified dosage per acre by air or ground equipment in sufficient water (minimum 2 gallons for aerial application) for complete coverage of foliage. Make applications as needed to maintain control, however, do not apply more than 16.8 fl oz of BAYTHROID 2 per acre per crop season. Allow 7 days between applications. Applications may be made up to 7 days before harvest. Do not apply to crops grown for seed.</p> <p>Use the low rate for 1st and 2nd instar control of Beet armyworm. Use higher rates for control of older larvae.</p> <p>*Applications may provide suppression of this insect.</p>
	Beet armyworm Cabbage looper Leafminers* Thrips (except <i>Thrips palmi</i>) Western yellow-striped armyworm	0.033 to 0.044	2.1 to 2.8	

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RECOMMENDED APPLICATIONS				
CROP	PEST	DOSAGE BAYTHROID 2		REMARKS
		lb AI/Acre	fl oz/Acre	
Radishes	Flea beetle cutworms	0.025 to 0.044	1.6 to 2.8	<p>Apply specified dosage per acre by air or ground equipment in sufficient water (minimum 2 gallons for aerial application) for complete coverage. A total of five applications may be made per crop season.</p> <p>Allow at least 7 days between applications.</p> <p>Applications may be made up to and including day of harvest. Do not apply to crops grown for seed.</p>
Tomatoes	Colorado potato beetle* Dipterous leafminers European corn borer Potato aphid Stinkbugs Tomato fruitworm Tomato hornworm Whitefly (suppression)	0.025 to 0.044	1.6 to 2.8	<p>Apply specified dosage per acre by air or ground equipment in sufficient water (minimum 2 gallons for aerial application) for complete coverage of foliage. Repeat applications as needed to maintain control. A total of 16.8 fl oz of BAYTHROID 2 may be applied per acre per crop season. Allow 7 days between applications.</p> <p>Applications may be made up to and including day of harvest. Do not apply to crops grown for seed.</p>
	Beet armyworm Cabbage looper Southern armyworm Tomato pinworm Variegated cutworm Western flower thrips Western yellow-striped armyworm	0.033 to 0.044	2.1 to 2.8	<p>Use the low rate for 1st and 2nd instar control of Beet armyworm. Use higher rates for control of older larvae.</p> <p>*In some areas, this insect may have developed resistance to pyrethroid insecticides. BAYTHROID insecticide used alone may not provide satisfactory control in those areas. Consult your local agricultural advisor or Cooperative Extension Service for recommendations.</p>
	Flea beetle	0.044	2.8	
Citrus CALIFORNIA AND ARIZONA ONLY	Citrus thrips	0.1	6.4	<p>Apply specified dosage per acre by ground equipment only, in sufficient water for complete coverage of foliage in dilute or concentrate sprays but not less than 25 gallons per acre for concentrate sprays. A single application may be made per crop season. Application soon after pollination is most effective in preventing thrips scarring. Use on trees 3 or more years old.</p> <p>Applications may be made up to the day of harvest.</p> <p>When spraying near aquatic areas, spray last three rows windward of aquatic areas using nozzles on one side only, with spray directed away from aquatic areas. Avoid spray going over tops of trees by adjusting or turning off top nozzles. Shut off nozzles on the side away from the grove / orchard when spraying the outside row. Shut off nozzles when turning at ends of row and passing tree gaps in the rows.</p> <p>Make applications when wind velocity favors on-target product deposition (approximately 3 to 8 mph). Do not apply within 110 feet upwind of aquatic areas (as described below). Do not apply when wind velocity exceeds 8 mph. Avoid applications when wind gusts approach 8 mph.</p>

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

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS, MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

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. Increase the buffer zone to 450 feet when ultralow volume (ULV) application is made.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip

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vortices. The minimum practical boom length should be used, and must not exceed 75% of the wing span or rotor diameter.

Use the largest droplet size consistent with pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure.

Spray should be released at the lowest possible height consistent with good pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

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

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

RATE CONVERSION CHART			
Lb A/A	Fl Oz/A	Acres Treated	
		/Gallon	/Pint
0.0125	0.8	160	20
0.025	1.6	80	10
0.028	1.8	71	9.0
0.033	2.1	61	7.6
0.044	2.8	46	5.7
0.05	3.2	40	5

CROP ROTATION STATEMENT

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

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: Non-refillable Container: 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. **Returnable Refillable Sealed Container:** Do not rinse container. Do not break seals. Replace the dust cover cap and return container intact to point of purchase.

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 Bayer Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer Kansas City Emergency Response Telephone No. is 800-414-0244 or contact Chemtrec at 800-424-9300.

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Ambush, Cymbush and Karate are Reg TMs of Zeneca, Inc.
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