

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

NOV 15 2005

Jamin Huang, PhD
Bayer CropScience
2 T.W. Alexander Drive
Research Triangle Park, NC 27709

Subject:

Label Amendment to Add Crop Uses

EPA Registration No. 264-745

Baythroid 2 Emulsifiable Pyrethroid Insecticide

Your submissions dated March/22/2002, September/17/2003, and

August/12/2004

Dear Dr. Huang:

The amendment referred to above, submitted in connection with registration under Section (3) (c) (7) (b) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable subject to the comments and terms for conditional registration listed below. Two (2) copies of the finished labeling must be submitted prior to releasing the product for shipment. A stamped copy of the label is enclosed for your records.

- 1. You will submit and/or cite all data required for registration/reregistration of your product under FIFRA Section 3 (c) (5) when the Agency requires all registrants of similar products to submit such data; and submit responses required for reregistration of your product under FIFRA Section 4.
- 2. You agree that the subject amendment is conditional under the same terms and conditions for data generation as stipulated in our November 15, 1993 letter for use of this product on cotton.
- 3. You agree that the current synthetic pyrethroid mitigation measures are interim in nature and may be reconsidered or modified after review and evaluation of the Spray Drift Task Force data.
- 4. You will submit production information (pounds or gallons produced) for this product for the fiscal year in which the added uses are conditionally registered, in accordance with FIFRA Section 29. The fiscal year begins October 1 and ends September 30. The production information will be submitted to the Agency no later than November 15 following the end of the preceding fiscal year.

This information should be submitted to:

U.S. Environmental Protection Agency Office of Pesticide Programs (7504C) Document Processing Desk Ariel Rios Building 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460

- 5. You agree to submit an Aerobic Aquatic Metabolism Study (Guideline 162-4) conducted in accordance with the 40 CFR Part 158. Please refer to the Environmental Risk Assessment Memorandum for the subject uses dated July 13, 2004 for details.
- 6. You will make the following label changes:
 - a. On page 23, under sweet corn, revise "Maximum Baythroid® 2 allowed per day" to read: "Maximum Baythroid® 2 allowed per 2 day interval". Field trial data only support 2-day retreatment intervals.
 - b. Under Disclaimer of Warranties revise the statement beginning with: "Bayer CropScience disclaims any liability whatsoever..." to read: "To the fullest extent permitted by law Bayer CropScience disclaims ..." or "It is Bayer CropScience intention..." As currently written the statement negates and/or detracts from labeling requirements as set forth by the Agency in 40 CFR Part 156, and is, therefore, considered misbranding.

You should note that if you fail to satisfy any of the conditions imposed on this registration, e.g., you fail to submit the required data by the specified deadlines or the data submitted were not generated in accordance with applicable test guidelines, EPA may issue notice to cancel these uses under FIFRA 6(e).

If you have any questions regarding this action, please contact Olga Odiott at 703-308-

9369.

Sincerely,

George T. LaRocca' Product Manager 13 Insecticide Branch

Registration Division (7505C)

Enclosure

RESTRICTED USE PESTICIDE

Due to Toxicity to Fish and Aquatic Organisms

For retail 10.2 and tise and by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Baythroid® 2

Insecticide Group

Emulsifiable Pyrethroid Insecticide

For control of certain insect pests on field, vegetable, tree and vine crops. **ACTIVE INGREDIENT:** Cyfluthrin Contains 2 lb Cyfluthrin per gallon. (This product contains aromatic petroleum distillates.) EPA Est. No. EPA Reg. No. 264-745

STOP - Read the label before use **KEEP OUT OF REACH OF CHILDREN** DANGER

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.)

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577 For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

FIRST AID

If in eyes	 Hold eye open and rinse slowly and gently with water for 15 to 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	Cail a poison control center or doctor immediately for treatment advice.
	Do not induce vomiting unless told to do so by a poison control center or doctor.
	Do not give any liquid to the person. ACCEPTED
	Do not give anything by mouth to an unconscious person. With COMMENTS The PA Letter Dated
If on skin or clothing	Take off contaminated clothing. NOV 12 2005
	Rinse skin immediately with plenty of water for 15 to 20 minutes. Tunded the Federal Insertible Act. Proposite and Redestible Act.
	Call a poison control center or doctor for treatment advice.
If inhaled	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.

In case of emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

Note To Physician: ANTIDOTE - No specific antidote is available. Treat symptomatically. Published data indicate vitamin E acetate can prevent and/or mitigate symptoms of paresthesia caused by synthetic pyrethroids. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear (goggles or face shield). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. May be fatal if inhaled. Do not breathe vapors or spray mist. Harmful if swallowed or absorbed through skin. 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

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this products 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.

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

Restricted Use Pesticide

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 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 evewear

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: 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 container 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 below. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer CropScience Emergency Response Team for decontamination procedures or any other assistance that may be necessary. Bayer CropScience Emergency Response Telephone No. is 1-800-334-7577.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL - 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.

CONTAINER DISPOSAL - 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.

Baythroid® 2 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.

INSECT RESISTANCE STATEMENT

Some insects are known to develop resistance to products used repeatedly for control. 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 agricultural authorities for details. If resistance to this product develops in your area, this product alone may not continue to provide adequate control of resistant pests. If poor performance cannot be attributed to improper application, extreme weather conditions, etc., 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 Cooperative Extension Service agent or agricultural advisor for insect resistance management strategies and recommended insect control methods in your area.

APPLICATION GUIDELINES

For all insects, timing of application should be based on careful scouting and local economic thresholds.

Foliar Spray Application

Foliar applications may be made using properly calibrated ground sprayers, fixed- or rotary-winged aircraft or through properly designed, sprinkler-type, chemigation equipment (See Chemigation Application directions below). Thorough and uniform coverage of plants, with direct contact of the spray mixture to the target pests, is required for satisfactory control.



Avoid application procedures where thorough coverage of plant is not possible. Applications made with less than thorough coverage may result in slower activity and/or less overall control from a single application than an application made with higher gallonages. See general, Spray Drift Reduction Management, section below for application guidelines on minimizing drift from all application methods.

Ground applications should be made in a minimum of 10 gallons/A.

Aerial applications should be made in a minimum of 2 gallons/A, however 5 gallons/A are recommended. See crop specific gallonage requirements. Aerial applications made to dense canopies may not provide sufficient coverage of lower leaves to provide pest control. Higher labeled rates of Baythroid® 2 may be necessary for aerial applications.

Chemigation applications (See Chemigation Application directions below) should be made as concentrated as possible. For best results apply at 100% input/travel speed, for center pivots or 0.10 inch (2,716 gallons) up to 0.15 inch (4,073 gallons) of water/A, for other systems. Higher labeled rates of Baythroid® 2 may be necessary for chemigation applications.

Chemigation Application

Types of Irrigation Systems: Baythroid® 2 may be applied through sprinkler type irrigation systems, only. These types include; center pivot, lateral move, or solid set irrigation systems. Do not apply Baythroid® 2 through any other type of irrigation system.

Injection for Chemigation: Inject the specified dosage of Baythroid® 2 into the irrigation main, water stream: (1) through a constant flow, metering device; (2) into the center of the main line flow via a pitot tube or equivalent; (3) at a point ahead of at least one, right-angle turn in main stream flow such that thorough mixing with the irrigation water is ensured.

Uniform Water Distribution and System Calibration: The irrigation system must provide uniform distribution of Baythroid® 2 treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in or on the crop can result from non-uniform distribution. The system must be calibrated to uniformly distribute the rates specified for chemigation application to specific crops. If you have questions about calibration, contact your Cooperative Extension Service agent, 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.

Required Injection and Sprinkler 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 back-flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection. 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/engine stops, or in cases where there is no water pump, when water pressure decreases to the point where pesticide distribution is adversely affected. Injection systems must use a metering pump or equivalent, such as a positive displacement injection pump (e.g., diaphragm pump, venturi injection) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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 that 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 flow 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 same safety requirements as for any other type of water supply and include the same safety devices.

Chemical Supply Tank Dilution and Agitation: For injection of Baythroid® 2 use a chemical supply tank for pre-mixing Baythroid® 2 with either, water or non-emulsifiable oil before injecting mixture into the irrigation line. Dilution ratio should be at least 4 parts of either water/ or non-emulsifiable oil, to 1 part Baythroid® 2. If necessary, constant mechanical or hydraulic agitation should be maintained in the chemical supply tank during the entire period of application. Determine the required amounts of Baythroid® 2 and either water or non-emulsifiable oil, 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 either water or non-emulsifiable oil needed equals the amount of emulsion needed minus the amount of Baythroid® 2 needed.

Posting Requirements: Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to the following requirements: Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive 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.

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Cleaning the Chemical Injection System: In order to apply pesticides accurately, the chemical injection system must be kept clean; free from chemical or fertilizer residues and sediments. Refer to your owner's 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.

Center-Pivot and Automatic-Move Linear Systems: Inject the specified dosage per acre continuously for one complete revolution (center pivot) or move of the system. The system should be run at maximum speed. 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. The use of END GUNS is NOT recommended. End guns that provide uneven distribution of treated water can result in crop injury, lack of effectiveness, or illegal pesticide residues in or on the crop.

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.

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.

Spray Drift Reduction Management

Do not apply when wind speed favors drift beyond the area intended for treatment. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application. Avoiding spray drift is the responsibility of the applicator.

Buffer Zone Requirements:

Ground, Foliar Applications: Do not apply by ground within 25 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 an ultra low volume (ULV) application is made.

Aerial Applications: Do not apply by air within 150 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds. The spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wing span or rotor diameter.

Importance of Droplet Size: An important factor influencing drift is droplet size. Small droplets (<150 to 200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. 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.

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.

Wind Speed Restrictions: Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Avoiding applications when wind direction is toward the aquatic area can reduce risk of exposure to sensitive aquatic areas.

Restrictions During Temperature Inversions: Do not make aerial or ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog. However, if fog is not present, the movement of smoke from a ground source can also identify inversions. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

RUNOFF MANAGEMENT

Do not cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip. When used on erodible soils, best management practices for minimizing runoff should be employed. Consult your local Soil Conservation Service for recommendations in your use area. Do not apply if soil is saturated with water. Do not apply under conditions that favor drift from runoff. Do not apply in the rain.

FIELD CROPS

RECOMMENDED APPLICATIONS - BAYTHROID® 2

For all crops, apply specific dosage of Baythroid® 2 at early threshold for target pest, as population begins to develop. Degree of control or suppression of additional labeled pests will be determined, in part by the stage of pest development at application and infestation level of those pests.

Application timing should be based on local economic thresholds. Baythroid® 2 may be applied before, during, or after planting. Use the higher rates for moderate to heavy insect pressure. Lower rates are generally adequate for low to moderate insect pressure but require careful scouting and may require more frequent application.

Baythroid® 2 is an Emulsifiable Concentrate formulation and is active by contact and ingestion. Thorough coverage is necessary for optimum performance.

See application recommendations at the beginning of each section: FIELD CROPS; VEGETABLE CROPS; TREE and VINE CROPS.

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Alfalfa looper		
Cutworms		
Green cloverworm	0.8 - 1.6	0.013 - 0.025
Meadow spittlebug		
Potato leafhopper		
Alfalfa caterpillar		<u></u>
Alfalfa plant bug		
Alfalfa webworm		
Alfalfa weevil		
Armyworm (1st and 2nd instar)		
Aster leafhopper		
Beet armyworm (1st and 2nd instar)		
Corn earworm		
Corn rootworms (adult)		
Cucumber beetles (adult)		
Egyptian alfalfa weevil		
Fall armyworm (1 st and 2 nd instar)	1.6 - 2.8	0.025 - 0.044
Grape colaspis (adult)		
Japanese beetle (aduit)		
June beetie (adult)	·	
Loopers		
Lygus bug		
Mexican bean beetle		
Stink bugs		
Tamished plant bug		
Threecomered alfalfa hopper		
Velvetbean caterpillar		
Yellowstriped armyworm (1 st and 2 nd instar)		
Blotch leafminer		
Grasshoppers	2.0 - 2.8	0.031 - 0.044
Western yellowstriped armyworm (1st and 2nd instar)		
PESTS SUPPRESSED		
Blue pea aphid		
Cowpea aphid	2.8	0.044
Pea aphid	2.0	0.077
Whitefly (adult)		

Notes: Pre-Harvest Interval (PHI) or Pre-Grazing Interval: 7 days.

Maximum Baythroid® 2 allowed per cutting: 3.2 fluid ounces/A (0.050 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 12.8 fluid ounces/A (0.200 lbs Al/Acre).

Minimum application volume (water): 10.0 GPA – ground, 2.0 GPA – aerial application.

Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 qt/A – aerial application.

Due to potential injury to bees, do not apply to alfalfa grown for seed.

Do not apply to mixed stands with intentionally-grown forage grasses.

See CHEMIGATION statement in Application Guidelines section of this label.

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Black cutworm		
Flea beetles	0.8 - 1.6	0.013 - 0.025
Granulate cutworm	0.8 - 1.0	0.013 - 0.025
SandIhill cutworm		
Armyworm (1 st and 2 nd instar)		
Bean leaf beetle		
Cereal leaf beetle		
Chinch bug		
Click beetle (adult)		
Corn earworm		
Corn rootworms (adult)		
European corn borer*		
Grape colaspis (adult)		
Japanese beetle(adult)		
June beetle (adult)	1.6 - 2.8	0.025 - 0.044
Leafhoppers		
Masked chafer (adult)		
Southern armyworm (1 st and 2 nd instar)		
Southern corn leaf beetle		
Southwestern corn borer*	\	
Stalk borer		
Stink bugs	1	

Notes: Pre-Harvest Interval (PHI): For grain or fodder 21 days; Green forage may be fed 0 days after last application.

Maximum Baythroid® 2 allowed per 7-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 11.2 fluid ounces/A (0.175 lbs Al/Acre).

Maximum number of applications per season: 4. Three applications may be applied up to early dent stage. One application may be made between early dent and 21 days before harvest.

2.1 - 2.8

2.8

Minimum application volume (water): 10.0 GPA - ground, 2.0 GPA - aerial application.

Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 qt/A - aerial application.

See CHEMIGATION statement in Application Guidelines section of this label.

* Application must be made prior to the larva boring into the plant.

Webworm

Grasshoppers

Western bean cutworm

Yellowstriped armyworm (1st and 2nd instar)

Fall armyworm (1st and 2nd instar)

0.033 - 0.044

0.044



CORN soil pests Field Corn, Popcorn, Seed Corn		
PESTS CONTROLLED	Rate fluid ounces/ 1000 row ft	Rate fluid ounces/ acre (based on 30 inch row spacing)
Seedcorn maggot Wireworm	0.12 0.16	2.0 - 2.8
PESTS SUPPRESSED		
White grub	0.14 - 0.16	2.5 – 2.8

Notes: Pre-Harvest Interval (PHI): For grain or fodder 21 days; Green forage may be fed 0 days after last application.

Maximum Baythroid® 2 allowed per 7-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 11.2 fluid ounces/A (0.175 lbs Al/Acre).

APPLICATION INSTRUCTIONS:

Carrier Baythroid® 2 may be applied in water or in liquid pop-up fertilizer at planting. Apply in a minimum of 2 GPA of total mix volume when applied in water. Good agitation must be maintained at all times during application.

Instructions for liquid pop-up fertilizer application: Perform a compatibility test prior to mixing the entire tank to ensure that Baythroid® 2 will remain in solution while applying. Take a known amount of the fertilizer to be used as a carrier and place in a glass jar. Add the appropriate amount of Baythroid® 2 based on the labeled use rate. Add other components to be tank mixed. Gently agitate the solution. Examine the solution for signs of incompatibility such as flocculation, precipitation, separation, etc. If incompatibility occurs contact your local Bayer representative for additional information.

Fertilizers containing zinc have been show to be incompatible with Baythroid® 2 and should not be mixed with Baythroid.

Placement: Total mix volume should be applied in the open furrow ahead of the closing wheels for optimum coverage.

Row width adjustment: The above rate calculations are based on a standard 30 inch row spacing. For row spacing of less than 30 inches, adjust the rate of Baythroid® 2 not to exceed 2.8 fluid ounces/A (0.044 lbs Al/Acre). Diminished control may occur when rates are decreased below the recommended minimum rates per 1000 row feet.

COTTON		
PESTS CONTROLLED	Rate fluid ounces/Acre	Rate Ibs Al/Acre
Cotton leafperforator	,	
Cotton leafworm	0.8 – 1.6	0.013 - 0.025
Cutworms		
Thrips		
Boll weevil		
Cabbage looper		
Cotton aphid		
Cotton bollworm*		
Cotton fleahopper		
Cucumber beetle		
European corn borer		
Flea beetles		
Garden webworm		
Lygus bug*	1.6 – 2.6	0.025 - 0.041
Pink bollworm		
Saltmarsh caterpillar		
Southern garden leafhopper		
Stink bugs		
Tarnished plant bug*	[.	
Threecornered alfalfa hopper		
Tobacco budworm*		
Ovicidal Control:		
Cotton bollworm and tobacco budworm		· · · · · · · · · · · · · · · · · · ·
Grasshopper	2.0 – 2.8	0.031 - 0.044
Beet armyworm (1 st and 2 nd instar)		
Cotton leafminer		
Fall armyworm (1 st and 2 nd instar)	3.2	0.050
Soybean looper		
Yellowstriped armyworm		
PESTS SUPPRESSED		
Whitefly (adult)	3.2	0.050

Notes: Pre-Harvest Interval (PHI): 0 day.

Maximum Baythroid® 2 allowed per 3-day interval: 3.2 fluid ounces/A (0.050 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 32.0 fluid ounces/A (0.500 lbs Al/Acre).

Maximum number of applications: 10.

Minimum application volume (water): 10.0 GPA - ground, 2.0 GPA - aerial application.

Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 qt/A – aerial application.

See CHEMIGATION statement in Application Guidelines section of this label.

*See INSECT RESISTANCE statement elsewhere on this label.

Do not graze treated fields.

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.

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GRASSES**		
PESTS CONTROLLED	Rate fluid ounces/Acre	Rate ibs Al/Acre
Armyworms	1.6 1.9	0.025 - 0.03

Notes: Pre-Harvest Interval (PHI) for hay: 7 days.

Pre-Grazing Interval for forage: 0 days

Maximum BAYTHROID 2 allowed per hay cutting: 1.9 fluid ounces/A (0.030 lbs Al/Acre).

Maximum BAYTHROID 2 allowed per 28 days for forage: 1.9 fluid ounces/A (0.030 lbs Al/Acre).

Maximum number of applications year: 1

Minimum application volume (water): 10.0 GPA - ground, 2.0 GPA - aerial application.

See CHEMIGATION statement in Application Guidelines section of this label.

**Use permitted in CA, ID, OR, and WA only unless accompanied by a supplemental label.

PEANUT **		
PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Cutworms		
Green cloverworm		
Potato leafhopper	1.0 – 1.8	0.016 - 0.028
Rednecked peanutworm		
Velvetbean caterpillar		
Armyworm (1st and 2nd instar)		
Bean leaf beetle		
Com earworm		
Corn rootworms (adult)	i i	
Grape colaspis (adult)		
Grasshoppers	1.8 – 2.4	0.028 - 0.038
Japanese beetle (adult)		
June beetle (adult)]	
Stink bugs		
Threecornered alfalfa hopper		
Vegetable weevil		
Beet armyworm (1st and 2nd instar)	,	
Fall armyworm (1st and 2nd instar)		0.038 - 0.044
Southern armyworm (1st and 2nd instar)	2.4 – 2.8	
Whitefringed beetle (adult)		
PESTS SUPPRESSED		
Soybean looper	1	
Thrips	2.8	, 0.044
Whitefly (adult)		

Notes: Pre-Harvest Interval (PHI): 14 days (minimum time between final application and threshing for seed).

Maximum Baythroid® 2 allowed per 10-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 8.4 fluid ounces/A (0.131 lbs Al/Acre).

Maximum number of applications: 3.

Minimum application volume (water): 10.0 GPA - ground; 2.0 - aerial application.

Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 qt/A - aerial application.

See CHEMIGATION statement elsewhere on this label.



SORGHUM		
PESTS CONTROLLED	Rate fluid ounces/Acre	Rate Ibs Al/Acre
Cutworms		
Sorghum midge	1.0 – 1.3	0.016 - 0.020
Armyworm (1 st and 2 nd instar)		
Beet armyworm (1st and 2nd instar)		
Black wooly bear		
European corn borer*		
Fall armyworm (1 st and 2 nd instar)	<u> </u>	•
False chinch bug		
Flea beetle		
Sorghum headworm (corn earworm)	1.3 – 2.8	0.020 - 0.044
Sorghum webworm		
Southern armyworm (1 st and 2 nd instar)		
Southwestern corn borer*		
Stalk borer*		
Stink bugs		
Webworms		•
Yellowstriped armyworm (1st and 2nd instar)		
Chinch bug		
Grasshoppers	2.0 – 2.8	0.038 - 0.044
Sugarcane rootstock weevil		

Notes: Pre-Harvest Interval (PHI): 14 days.

If more than 5.6 fluid ounces/Acre is applied, allow at least 14 days between last application and grazing.

Maximum Baythroid® 2 allowed per 10-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 8.4 fluid ounces/A (0.131 lbs Al/Acre).

Maximum number of applications: 6.

Minimum application volume (water): 10.0 GPA – ground; 2.0 – aerial application.

Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 qt/A – aerial application.

See CHEMIGATION statement in Application Guidelines section of this label.

* Application must be made prior to the larva boring into the plant.



PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Cutworms		-
Potato leafhopper		
Thrips	0.8 – 1.6	0.013 - 0.025
Green cloverworm		
Armyworm		
Bean leaf beetle		
Bean leaf webber		
Beet armyworm (1st and 2nd instar)		
Blister beetle		
Cabbage looper		
Click beetle (adult)		
Corn earworm		
Corn rootworms (adult)		
Cucumber beetle		
European corn borer		
Fall armyworm (1 st and 2 nd instar)		
Grape colaspis (adult)		
Japanese beetle (adult)		
June beetle (adult)	1.6 – 2.8	0.025 - 0.044
Lygus bug		
Masked chafer (adult)		
Mexican bean beetle		
Saltmarsh caterpillar		
Silverspotted skipper		
Southern armyworm (1 st and 2 nd instar)		
Stink bugs		
Tarnished plant bug*		
Threecornered alfalfa hopper		
Tobacco budworm*		
Velvetbean caterpillar		
Webworm		
Woolybear caterpillar		
Yellowstriped armyworm		
Grasshoppers	00.00	0.004 0.044
Soybean aphid	2.0 – 2.8	0.031 - 0.044
PESTS SUPPRESSED		
Lesser cornstalk borer		
Soybean looper*	2.8	0.044

Notes: Pre-Harvest Interval (PHI) or feeding of dry vines: 45 days. Green forage may be fed 15 days after last application.

Maximum Baythroid® 2 allowed per 7-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 11.2 fluid ounces/A (0.175 lbs Al/Acre).

Maximum number of applications per season: 4.

Minimum application volume (water): 10.0 GPA - ground, 2.0 GPA - aerial application.

Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 qt/A - aerial application.

See CHEMIGATION statement in Application Guidelines section of this label.

*See INSECT RESISTANCE statement elsewhere on this label.

SUGARCANE		
PESTS CONTROLLED	Rate fluid ounces/Acre	Rate (bs Al/Acre
Sugarcane borer*	2.1	0.033
Rice stalk borer*	2.8	0.044

Notes: Pre-Harvest Interval (PHI): 15 days.

Maximum Baythroid® 2 allowed per 7-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 16.8 fluid ounces/A (0.263 lbs Al/Acre).

Maximum number of applications: 6.

Minimum application volume (water): 20.0 GPA – ground; 2.0 GPA – aerial application.

Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 qt/A - aerial application.

Do not apply if soil is saturated with water.

Do not apply under conditions that favor runoff.

Do not apply in the rain.

* Application must be made prior to the larva boring into the plant.

SUNFLOWER		
PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Cutworms	0.8 – 1.6	0.042 0.025
Sunflower beetle	0.6 - 1.6	0.013 - 0.025
Sunflower stem weevil (adult)	1.6 – 2.4	0.025 - 0.038
Banded sunflower moth		
Grasshoppers	Į	
Stink bugs		
Sunflower bud moth	2.0 – 2.8	0.031 0.044
Sunflower headclipping weevil		
Sunflower midge	·	
Sunflower moth		
Sunflower seed weevil		
Palestripped flea beetle	2.8	0.044

Notes: Pre-Harvest Interval (PHI) and Pre-grazing or Foraging Interval: 30 days.

Maximum Baythroid® 2 allowed per 7-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 8.4 fluid ounces/A (0.131 lbs Al/Acre).

Maximum number of applications: 6.

Minimum application volume (water): 10.0 GPA ~ ground; 2.0 – aerial application (DO NOT apply ULV).

See CHEMIGATION statement in Application Guidelines section of this label.

WHEAT **		
PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Army cutworm		
Cereal leaf beetle	1.0 – 1.8	0.016 - 0.028
Cutworms		
Armyworm		
Bird cherry-oat aphid* ·		
English grain aphid*		
Fall armyworm (1st and 2nd instar)		
Flea beetles		
Grasshoppers	1.8 – 2.4	0.028 - 0.038
Grass sawfly	1.0 – 2.4	0.020 - 0.038
Pale western cutworm		
Russian wheat aphid*		
Southern armyworm (1 st and 2 nd instar)		
Stink bugs		
Yellowstriped armyworm		
Chinch bug	2.4	0.038

Notes: Pre-Grazing or Foraging Interval: 7 days. Pre-Harvest Interval (PHI): 30 days.

Maximum Baythroid® 2 allowed per 3-day interval: 2.4 fluid ounces/A (0.038 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 4.8 fluid ounces/A (0.076 lbs Al/Acre).

Maximum number of applications: 2.

Minimum application volume (water): 10.0 GPA - ground; 2.0 GPA - aerial application.

Minimum ULV application volume (cotton seed/vegetable oil): 1.0 qt/A - aerial application.

See CHEMIGATION statement in Application Guidelines section of this label.

* For best control, applications must be made prior to insects damaging the plants. Use the higher rate range and increased water volume for applications occurring after plant damage has taken place or following booting in order to receive better coverage. Once damage occurs or plant growth stage reaches booting, control may be limited to suppression only.

**Use not permitted in CA unless accompanied by supplemental label.

VEGETABLE CROPS

RECOMMENDED APPLICATIONS - BAYTHROID® 2

For all crops, apply specific dosage of Baythroid® 2 at early threshold for target pest, as population begins to develop. Degree of control or suppression of additional labeled pests will be determined, in part by the stage of pest development at application and infestation level of those pests.

Application timing should be based on local economic thresholds. Baythroid® 2 may be applied before, during, or after planting. Use the higher rates for moderate to heavy insect pressure. Lower rates are generally adequate for low to moderate insect pressure but require careful scouting and may require more frequent application.

Baythroid® 2 is an Emulsifiable Concentrate formulation and is active by contact and ingestion. Thorough coverage is necessary for optimum performance.

See application recommendations at the beginning of each section: FIELD CROPS; VEGETABLE CROPS; TREE and VINE CROPS.

COLE CROPS

Includes all members of Crop Subgroup 5A such as, but not limited to:

Broccoil, Chinese (gai lon) broccoll, Brussels sprouts, Cabbage, Chinese (napa) cabbage, Chinese mustard (gal choy) cabbage, Cauliflower, Cavalo broccoll, Kohlrabi, Mustard greens and Turnip greens.

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Cutworms		
Potato leafhopper	0.8 - 1.6	0.013 - 0.025
Thrips		
Alfalfa looper		
Cabbage looper		
Cabbage webworm	1.6 – 2.4	0.025 - 0.038
Imported cabbageworm		
Southern cabbageworm		
Armyworm ,		
Beet armyworm (1st and 2nd instar)		
Cabbage flea beetle		
Corn earworm		
Diamondback moth (larvae)*		
Fall armyworm (1st and 2nd instar)		
Grasshoppers		
Japanese beetle (adult)	2.4 – 3.2	0.038 - 0.050
Lygus bug		
Meadow spittlebug		
Southern armyworm (1st and 2nd instar)		
Stink bugs		
Tamished plant bug*		,
Vegetable weevil (adult)		
Yellowstriped armyworm		
PESTS SUPPRESSED		
Whitefly (adult)	3.2	0.050

Notes: Pre-Harvest Interval (PHI): 0 day.

Maximum Baythroid® 2 allowed per 7-day interval; 3.2 fluid ounces/A (0.050 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 12.8 fluid ounces/A (0.200 lbs Al/Acre).

Maximum number of applications: 4,

Minimum application volume (water): 10 GPA – ground, 5 GPA – aerial application.

Due to potential injury to bees, do not apply to cole crops grown for seed.

See CHEMIGATION statement in Application Guidelines section of this label.

*See INSECT RESISTANCE statement elsewhere on this label.

CUCURBITS ** (except crops grown for seed)

includes all members of Crop Group 9 such as, but not limited to:

Baisam apple, Baisam pear, Bitter melon, Chayote, Chinese cucumber, Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (Includes: hyotan, cucuzza, henchmia and Chinese okra), Muskmelon (Includes: cantaloupe, true cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Ciaus melon, and snake melon), Pumpkin, Summer squash (Includes: crookneck squash, scallop squash, straightneck squash, vegetable marrow, and zucchini) Watermelon, Winter squash (Includes: butternut squash, calabaza, hubbard squash, acom squash and spaghetti squash)

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate Ibs Al/Acre
Cutworms	00.40	0.042 0.005
Potato leafhopper	0.8 – 1.6	0.013 - 0.025
Armyworm		
Cabbage looper	1	
Com earworm		
Grasshoppers	10.04	0.005 0.000
Melonworm	1.6 – 2.4	0.025 0.038
Pickleworm		
Rindworm		
Stink bugs		
Cucumber beetle		
Lygus bug		
Stripped cucumber beetle	2.4 – 2.8	0.038 0.044
Tarnished plant bug *		
Tobacco budworm		
PESTS SUPPRESSED		
Whitefly (adult)	2.8	0.044

Notes: Pre-Harvest Interval (PHI) = 0 day.

Maximum Baythroid® 2 allowed per 7-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 11.2 fluid ounces/A (0.175 lbs Al/Acre).

Maximum number of applications: 4.

Minimum application volume (water): 10.0 GPA – ground, 2.0 GPA – aerial application.

See CHEMIGATION statement in Application Guidelines section of this label.

* See INSECT RESISTANCE statement elsewhere on this label.

FRUITING VEGETABLES

Includes all members of Crop Group 8 such as, but not limited to:

Eggplant**, Groundcherry**, Pepino**, Pepper (includes: bell pepper, chill pepper, cooking pepper, pimento, sweet pepper), Tomatillo**, and Tomato

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate Ibs Al/Acre
Celery leaftier		
Colorado potato beetle *	Į	
European corn borer		
Garden webworm	į	
Potato aphid	1.6 – 2.8	0.025 - 0.044
Potato leafhopper		
Stink bugs		
Tomato fruitworm (corn earworm)	}	
Tomato hornworm		
Beet armyworm (1st and 2nd instar)	Ţ	
Cabbage looper		
Southern armyworm (1 st and 2 nd instar)		
Tarnished plant bug *	2.1 – 2.8	0.033 - 0.044
Thrips (except Thrips palmi)	2.1 – 2.0	0.033 - 0.044
Tomato pinworm		
Variegated cutworm		
Western yellowstriped armyworm (1st and 2nd instar)		
Flea beetles	2.8	0.044
PESTS SUPPRESSED		
Leafminers		
Pepper weevil	2.8	0.044
Whitefly (adult)		

Notes: Pre-Harvest Interval (PHI) for tomato = 0 days. PHI for all other fruiting vegetables included in this section = 7 days.

Maximum Baythroid® 2 allowed per 7-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 16.8 fluid ounces/A (0.263 lbs Al/Acre).

Maximum number of applications: 6.

Minimum application volume (water): 10.0 GPA - ground, 2.0 GPA - aerial application.

See CHEMIGATION statement in Application Guidelines section of this label.

* See INSECT RESISTANCE statement elsewhere on this label.

LEAFY VEGETABLES

Includes all members of Crop Group 4 such as, but not limited to:

Amaranth (Chinese spinach)**, Arugula (rouquette)**, Cardoon**, Celery**, Chinese celery**, Celtuce**, Chervil**, Chrysanthemum (edible-leaved and garland)**, Corn salad**, Cress (garden and upland)**, Dandelion**, Dock (sorrel)**, Endive (escarole)**, Florence fennei**, Lettuce (head and leaf), New Zealand spinach**, Orach**, Parsley**, Purslane (garden and winter)**, Radicchio (red chicory)**, Rhubarb**, Spinach**, Swiss chard**, Vine spinach**

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Cutworms		
Potato leafhopper	0.8 – 1.6	0.013 - 0.025
Thrips		
Alfalfa looper		
Cabbage looper		
Green cloverworm	1.6 – 2.4	0.025 - 0.038
Imported cabbageworm		
Saltmarsh caterpillar		
Beet armyworm (1 st and 2 nd instar)		
Corn earworm		
Diamondback moth (larvae)*		•
European corn borer .		
Fall armyworm (1 st and 2 nd instar)		
Flea beetles		
Grasshoppers		
Japanese beetle (adult)	2.4 – 3.2	0.038 - 0.050
Lygus bug		
Meadow spittlebug		
Southern armyworm (1 st and 2 nd instar)		
Stink bugs		
Tamished plant bug*		
Vegetable weevil (adult)		
Yellowstriped armyworm		
PEST SUPPRESSED		
Whitefly (adult)	3.2	0.050

Notes: Pre-Harvest Interval (PHI): 0 day.

Maximum Baythroid® 2 allowed per 7-day interval: 3.2 fluid ounces/A (0.050 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 12.8 fluid ounces/A (0.200 lbs Al/Acre).

Maximum number of applications: 4.

Minimum application volume (water): 10 GPA - ground, 5 GPA - aerial application.

Due to potential injury to bees, do not apply to lettuce grown for seed.

See CHEMIGATION statement in Application Guidelines section of this label.

*See INSECT RESISTANCE statement elsewhere on this label.

BEAN AND PEA, DRY

Includes all members of Crop Subgroup 6C such as, but not limited to:

Adzuke bean**, Blackeyed pea**, Broad bean**, Catjang**, Chickpea, Cowpea**, Crowder pea**, Dwarf pea**, Edible-pod pea**, English pea**, Field bean**, Field pea**, Garbonzo bean, Garden pea**, Green pea**, Guar**, Kidney bean**, Lablab bean**, Lentil, Lima bean**, Lupin (grain, sweet, white and white sweet)**, Moth bean**, Mung bean**, Navy bean**, Pigeon pea, Pinto bean**, Rice bean**, Snow pea**, Sugar snap pea**, Tepary bean**, Urd bean**

(Southern pea included in separate section.)

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate Ibs Al/Acre
Cutworms	00.40	0.042 0.005
Potato leafhopper	0.8 – 1.6	0.013 – 0.025
Cowpea curculio*		
Stink bugs	1.6 – 2.4	0.025 - 0.038
Tamished plant bug*		
Bean leaf beetle		
Bean leaf webber		
Beet armyworm (1st and 2nd instar)		
Blister Beetle		
Cabbage looper		
Com earworm		
Cucumber beetle	ĺ	
European corn borer		
Fall armyworm (1st and 2nd instar)		
Grasshoppers		
Green cloverworm		
Japanese beetle (adult)		
Lygus bug	2.4 - 3.2	0.038 - 0.050
Mexican bean beetle		
Pea leaf weevil		
Pea weevil		
Saltmarsh caterpillar		
Silverspotted skipper		
Soybean looper*		
Threecomered alfalfa hopper		
Tobacco budworm*		
Velvetbean caterpillar		
Webworm		
Woolybear caterpillar		
Yellowstriped armyworm		
PEST SUPPRESSED		
Pea aphid	3.2	0.050

Notes: Pre-Harvest Interval (PHI): 7 days (minimum time between final application and threshing for seed).

Maximum Baythroid® 2 allowed per 14-day interval: 3.2 fluid ounces/A (0.050 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 6.4 fluid ounces/A (0.100 lbs Al/Acre).

Maximum number of applications: 4.

Minimum application volume (water): 10.0 GPA – ground, 5.0 GPA – aerial application.

See CHEMIGATION statement in Application Guidelines section of this label.

Do not feed treated vines or hay to livestock.

*See INSECT RESISTANCE statement elsewhere on this label.

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Cutworms	0.8 - 1.6	0.013 - 0.025
Potato leafhopper	0.8 - 1.6	0,013 - 0.025
Beet armyworm (1st and 2nd instar)		
Com earworm		
Cowpea curculio		
Fall armyworm (1 st and 2 nd instar)		
Grasshoppers		
Lygus bug	1.6 – 2.1	0.025 - 0.033
Stink bugs		
Southern armyworm (1 st and 2 nd instar)		
Tamished plant bug*		
Thrips		
Yellowstriped armyworm		

Notes: Pre-Harvest Interval (PHI): 3 day.

Maximum Baythroid® 2 allowed per 5-day interval: 2.1 fluid ounces/A (0.033 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 10.5 fluid ounces/A (0.165 lbs Al/Acre).

Maximum number of applications: 5.

Minimum application volume (water): 10.0 GPA – ground, 2.0 GPA – aerial application.

Due to potential injury to bees, do not apply to southern peas grown for seed.

See CHEMIGATION statement in Application Guidelines section of this label.

Do not feed treated vines or hay to livestock.

Do not apply to cowpea or southern pea varieties grown for livestock feed.

*See INSECT RESISTANCE statement elsewhere on this label.

POTATO, SWEET POTATO and other tuberous and corm vegetables:

includes all members of Crop Subgroup 1C such as, but not limited to:

Arracacha**, Arrowroot**, Artichoke (Chinese and Jerusalem)**, Edible canna**, Cassava (bitter and sweet)**, Chayote root**, Chufa**, Dasheen**, Ginger**, Leren**, Potato, Sweet potato**, Tanier**, True yam**, Turneric**, Yam bean**

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Cutworms	22.12	0.040 0.005
Potato leafhopper	0.8 - 1.6	0.013 - 0.025
Cabbage looper		
Colorado potato beetle*	ĺ	
Eggplant flea beetle	\ \	
European corn borer		0.005 0.044
Potato flea beetle	1.6 - 2.8	0.025 - 0.044
Potato psytlid	į	
Potato tuberworm		
Tarnished plant bug*		
PESTS SUPPRESSED		
Aphids	2.8	0.044

Notes: Pre-Harvest Interval (PHI): 0 day.

If more than 5.6 fluid ounces/Acre is applied, allow at least 14 days between last application and grazing.

Maximum Baythroid® 2 allowed per 5-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 16.8 fluid ounces/A (0.263 lbs Al/Acre).

Maximum number of applications: 6.

Minimum application volume (water): 10.0 GPA - ground; 2.0 GPA - aerial application.

See CHEMIGATION statement in Application Guidelines section of this label.

*See INSECT RESISTANCE statement elsewhere on this label.

**Use not permitted in CA unless accompanied by supplemental label.

ROOT VEGETABLES (except sugarbeet)

includes all members of Crop Subgroup 1B such as, but not limited to:

Garden beet**, Edible burdock**, Carrot, Celeriac**, Turnip-rooted chervif**, Chicory**, Ginseng**, Horseradish**, Turnip-rooted parsley**, Parsnip**, Radish, Oriental radish**, Rutabaga**, Salsify (black, Spanish, and oyster plant)**, Skirret**, Turnip**

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Aster leafhopper		
Cutworms	10.00	0.005 0.044
Flea Beetle	1.6 – 2.8	0.025 0.044
Potato leafhopper		
Carrot weevil	2.8	0.044

Notes: Pre-Harvest Interval (PHI): 0 day.

Maximum Baythroid® 2 allowed per 7-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 14.0 fluid ounces/A (0.220 lbs Al/Acre).

Maximum number of applications: 5.

Minimum application volume (water): 10.0 GPA - ground, 2.0 GPA - aerial application.

Do not harvest radish tops (leaves) for human consumption.

Due to potential injury to bees, do not apply to any of the crops listed in this section grown for seed.

See CHEMIGATION statement in Application Guidelines section of this label.

SWEET CORN PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Black cutworm	rate initi onitionariore	I ILLO IDO AVAOIT
Flea beetles		
Granulate cutworm	0.8 - 1.6	0.013 - 0.025
Sandlhill cutworm		
Armyworm		
Bean leaf beetle		
Cereal leaf beetle		
Chinch bug		
Click beetle (adult)		
Corn earworm		
Corn rootworms (adult)		
Com silk fly		
European corn borer		
Grape colaspis (adult)		
Japanese beetle (adult)	1.6 - 2.8	0.025 - 0.044
Leafhoppers		
Masked chafer (adult)		
Southern armyworm (1 st and 2 nd instar)	1	
Southern corn leaf beetle		
Southwestern corn borer		•
Stalk borer		
Stink bugs		
Webworm		
Western bean cutworm		
Yellowstriped armyworm (1 st and 2 nd instar)		
Grasshoppers	2.0 - 2.8	0.031 - 0.044
Fall armyworm (1 st and 2 nd instar)	2.8	0.044

Notes: Pre-Harvest Interval (PHI): 0 day.

Maximum Baythroid® 2 allowed per day: 2.8 fluid ounces/A (0.044 lbs Ai/Acre).

Maximum Baythroid® 2 allowed per crop season: 28.0 fluid ounces/A (0.440 lbs Al/Acre).

Maximum number of applications: 10.

Minimum application volume (water): 10.0 GPA - ground; 2.0 - aerial application.

Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 qt/A – aerial application.

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See CHEMIGATION statement in Application Guidelines section of this label.

TREE and VINE CROPS

RECOMMENDED APPLICATIONS - BAYTHROID® 2

For tree and vine crops, application rates should be based on the Tree or Vine, Row-Volume/Density concept for either dilute or concentrate applications. For determining product required in concentrate applications, first determine amount of spray volume per acre necessary to spray-to-drip in a dilute application in a grove, yard, vineyard, or orchard. Based on this volume, calculate required formulation quantities per acre. Apply equivalent amount per acre for concentrated sprays. For orchard/vineyard airblast applications, do not spray above trees/vines and turn off outward pointing nozzles at row ends and outer rows.

Baythroid® 2 is an Emulsifiable Concentrate (EC) formulation and is active by contact and ingestion. Thorough coverage of foliage and fruit is necessary for optimum performance.

For all crops, apply specific dosage of Baythroid® 2 at early threshold for target pest, as population begins to develop. Degree of control or suppression of additional labeled pests will be determined, in part by the stage of pest development at application and infestation level of those pests.

Application timing should be based on local economic thresholds. Use the higher rates for moderate to heavy insect pressure. Lower rates are generally adequate for low to moderate insect pressure but require careful scouting and may require more frequent application.

See application recommendations at the beginning of each section: FIELD CROPS; VEGETABLE CROPS; TREE and VINE CROPS.

CITRUS (California and Arizona, Only)

includes all members of Crop Group 10 such as, but not limited to:

Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (sweet and sour), Pummelo, Satsuma mandarin, Tangelo, White sapote, and other cultivars and/or hybrids of these.

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate ibs Al/Acre
Glassywinged sharpshooter	1.6 – 3.2	0.025 - 0.050
Foliar feeding cutworms		
Fuller rose beetle (larvae and adults on foliage)		0.020 0.050
Grasshoppers	2.4 – 3.2	0.038 - 0.050
Root-weevil complex (larvae and adults on foliage)		
Citrus thrips		0.40
Katydid	6.4	0.10

Notes: Pre-Harvest Interval (PHI): 0 day.

Maximum Baythroid® 2 allowed per 7-day interval: 6.4 fluid ounces/A (0.10 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 6.4 fluid ounces/A (0.10 lbs Al/Acre).

Maximum number of applications: 4 (at low rate).

Minimum application volume (water): 25 GPA - ground, 25 GPA - aerial application.

Maximum use rate is based on canopy size requiring 250 gallons per acra, if sprayed to drip.

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre
Glassywinged sharpshooter		
Grape leaf skeletonizer	1.6 – 3.2	0.025 - 0.050
Western grape leaf skeletonizer		
Climbing cutworm	1	
Grape berry moth		
Grape bud beetle		•
Grape cane gallmaker (adult)		
Grape flea beetle		
Grape leaffolder		,
Grape leafhopper	2.4 – 3.2	0.038 - 0.050
Grape leafroller		
Grape mealybug (crawlers)		
Omnivorous leafroller		
Orange tortrix	Ì	
Thrips		
Variegated leafhopper		

Notes: Pre-Harvest Interval (PHI): 3 days.

Maximum Baythroid® 2 allowed per 14-day interval: 3.2 fluid ounces/A (0.050 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 12.8 fluid ounces/A (0.200 lbs Al/Acre).

Maximum number of applications: 4.

Minimum application volume (water): 50 GPA - ground, 25 GPA - aerial application.

Maximum use rate is based on canopy size requiring 250 gallons per acre, if sprayed to drip.

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HOP		
PESTS CONTROLLED	Rate fluid ounces/Acre	Rate Ibs Al/Acre
Hop aphid		
Hop flea beetle		0.050
Hop looper	3.2	0.050
Hop plant bug		

Notes: Pre-Harvest Interval (PHI): 7 days.

Maximum Baythroid® 2 allowed per 14-day interval: 3.2 fluid ounces/A (0.050 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 16.0 fluid ounces/A (0.250 lbs Al/Acre).

Maximum number of applications: 5.

Minimum application volume (water): 25 GPA - ground, 25 GPA - aerial application.

POME FRUIT **

Includes all members of Crop Group 11 such as, but not limited to:

Apple, Crabapple, Loquat, Mayhaw, Pear, Oriental pear, Quince

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre	
Green fruitworm			
Potato leafhopper	1.4 – 2.0	0.022 - 0.031	
White apple leafhopper			
Codling moth			
Oriental fruit moth			
Spotted tentiform leafminer	2.0 – 2.4	0.031 - 0.038	
Stink bugs	2.0 – 2.4		
Tamished plant bug			
Western tentiform leafminer			
Apple leafroller			
Apple maggot			
Ermine moth			
European apple sawfly	·		
Lesser appleworm			
Obliquebanded leafroller			
Pandemis leafroller	2.4 – 2.8	0.038 - 0.044	
Pear sawfly (larvae = pear slug)	2.4 – 2.0	0.030 - 0.044	
Periodical cicada			
Plum curculio			
Redbanded leafroller			
San Jose scale (crawlers)			
Tufted apple bud moth			
Variegated leafroller			

Notes: Pre-Harvest Interval (PHI): 7 days.

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Maximum Baythroid® 2 allowed per 14-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum number of applications: 2 (at low rate).

Minimum application volume (water): 100 GPA - ground application, 25 GPA - aerial application.

Maximum use rate is based on canopy size requiring 400 gallons per acre, if sprayed to drip.

STONE FRUIT **

Includes all members of Crop Group 12 such as, but not limited to:

Apricot, Cherry (sweet and tart), Nectarine, Peach, Plum (includes Chickasaw plum, Damson plum, and Japanese plum), Plumcot,

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre		
Green fruitworm				
Lesser peach tree borer	1.4 – 2.0	0.022 - 0.031		
White apple leafhopper				
Codling Moth		İ		
Lygus bug				
Oriental fruit moth	2.0 – 2.4	0.031 - 0.038		
Stink bugs				
Tamished plant bug				
American plum borer				
Black cherry aphid	}			
Cherry fruit fly		İ		
Obliquebanded leafroller				
Omnivorous leafroller	2.4 – 2.8	0.038 - 0.044		
Peach twig borer	2.4 – 2.0	0.038 = 0.044		
Periodical cicada		į		
Plum curculio				
Redbanded leafroller				
Western cherry fruit fly	·			

Notes: Pre-Harvest Interval (PHI): 7 days.

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Maximum Baythroid® 2 allowed per 14-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 5.6 fluid ounces/A (0.088 lbs Al/Acre).

Maximum number of applications: 4 (at low rate).

Minimum application volume (water): 50 GPA - ground application, 25 GPA - aerial application.

Maximum use rate is based on canopy size requiring 250 gallons per acre, if sprayed to drip.

TREE NUT CROPS **

includes all members of Crop Group 14 such as, but not limited to:

Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory nut, Macadamia nut, Pecan, Pistachio, Walnut (black and English)

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs Al/Acre	
Potato leafhopper	11.00	0.000 0.004	
White apple leafhopper	1.4 – 2.0	0.022 - 0.031	
Ants (on foliage)			
Codling moth			
Common earwig			
Filbertworm			
Leaffooted bug			
Navel orangeworm	2.0 – 2.4	0.031 - 0.038	
Pecan nut casebearer			
Pecan weevil			
Stink bugs			
Tarnished plant bug			
Twolined spittlebug			
Hickory shuckworm			
Obliquebanded leafroller	24.20	0.020 0.044	
Peach twig borer	2.4 – 2.8	0.038 - 0.044	
Walnut husk fly			

Notes: Pre-Harvest Interval (PHI): 14 days.

Maximum Baythroid® 2 allowed per 14-day interval: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum Baythroid® 2 allowed per crop season: 2.8 fluid ounces/A (0.044 lbs Al/Acre).

Maximum number of applications: 2 (at low rate).

 ${\bf Minimum\ application\ volume\ (water):\ 100\ GPA-ground\ application,\ 25\ GPA-aerial\ application.}$

Maximum use rate is based on canopy size requiring 500 gallons per acre, if sprayed to drip.

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RATE CONVERSION CHART

FLUID OUNCES PER ACRE	LBS AI PER ACRE	ACRES PER GALLON		
0.8	0.013	160		
1.0	0.016	128		
1.2	0.019	107		
1.4	0.022	91		
1.6	0.025	80		
8.1	0.028	71		
2.0	180.0	64		
2.2	0.034	56		
2.4	0.038	53		
2.6	0.041	49		
2.8	0.044	46		
3.0	0.047	43		
3.2	0.050	40		
6.4	0.100	20		

RATE CONVERSION CHART FOR TREE AND VINE APPLICATIONS

	FLUID OUNCES PER 100 GAL OF WATER WHEN USING SPRAY VOLUME OF:						
FLUID OUNCES PER ACRE	25 GPA	50 GPA	100 GPA	150 GPA	200 GPA	250 GPA	500 GPA
1.4	5.6	2.8	1.4	0.9	0.7	0.56	0.28
1.6	6.4	3.2	1.6	1.1	0.8	0.64	0.32
2.0	8.0	4.0	2.0	1.3	1.0	0.8	0.4
2.4	9.6	4.8	2.4	1.6	1.2	1.0	0.5
2.8	11.2	5.6	2.8	1.9	1.4	1.1	0.6
3.2	12.8	6.4	3.2	2.1	1.6	1.3	0.65
6.4	25.6	12.8	6.4	4.3	3.2	2.6	1.3

CROP ROTATION STATEMENT

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

IMPORTANT: READ BEFORE USE

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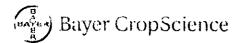
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