264-840 02/01/2006 1/31

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

EPA Reg. Number:	Date of Issuance:
264-840	FEB 1 2006
Term of Issuance: Conditional	
Name of Pesticide Product: Baythroid® XL	

NOTICE OF PESTICIDE:
X Registration
___ Reregistration
(Under FIFRA as amended)

Name and Address of Registrant (include ZIP Code):
Bayer CropScience
2 T.W. Alexander Drive
Research Triangle Park, NC 27709

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted for and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product, always refer to the above EPA Registration Number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is **conditionally** registered in accordance with FIFRA sec. 3(c)(7)(A), provided that:

1. You will submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. You agree that the subject registration is conditional under the same terms and conditions for data generation as stipulated in our November 15, 1993 letter for use of these products 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 new uses of cyfluthrin uses dated July 13, 2004 for details.

6. You will make the following label changes before you release the product for shipment:

   a) Revise the EPA Registration Number to read "EPA Reg. No. 264-840."

7. You will submit three (3) copies of your final printed labeling before releasing the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing amended labeling constitutes acceptance of these conditions.. A stamped copy of the label is enclosed for your records.

   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 this registration under FIFRA 6(e).

   If you have any questions regarding this action, please contact Olga Odiott of my team at (703) 308-9369.

Signature of Approving Official:	Date:
George T. LaRocca, Product Manager (13) Insecticide Branch/Registration Division (7505C)	FEB 1 2006

Enclosure

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RESTRICTED USE PESTICIDE

Due to Toxicity to Fish and Aquatic Organisms

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

Group 3 Insecticide

Baythroid® XL

For control of certain insect pests on field, vegetable, tree and vine crops.

ACTIVE INGREDIENT:

ß-cyfluthrin Cyano(4-fluoro-3-phenoxyphenyl)methyl-3-(2,2-dichloroethenyl)-2,2-dimethyl-cyclopropanecarboxylate	12.70%
INERT INGREDIENTS:	87.30%
Contains 1 lb Beta-cyfluthrin per gallon. **(This product contains aromatic petroleum distillates.)**	100.00%

EPA Reg. No. 264-XXX EPA Est. No.

STOP - Read the label before use
KEEP OUT OF REACH OF CHILDREN
WARNING AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

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:	• Call 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. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • 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. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

ACCEPTED
with COMMENTS
In EPA Letter Dated
FEB 1 2006
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No.
264-840

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

Causes substantial but temporary eye injury. 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 swallowed. Harmful if inhaled or absorbed through skin. Do not breathe vapors or spray mist. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals.

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. Remove from premises or tightly cover fish tanks and disconnect aerators when applying indoors where such containers are present. For terrestrial uses, 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 wash waters. Apply this product only as specified on this label.

This pesticide 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 or weeds on which bees are actively foraging. 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.

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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 eyewear

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® XL 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.

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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® XL 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® XL may be necessary for chemigation applications.

Chemigation Application

Types of Irrigation Systems: Baythroid® XL 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® XL through any other type of irrigation system.

Injection for Chemigation: Inject the specified dosage of Baythroid® XL 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® XL 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® XL 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® XL 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® XL use a chemical supply tank for pre-mixing Baythroid® XL 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® XL. 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® XL and either water or non-emulsifiable oil, to mix in the tank. The amount of Baythroid® XL needed equals the number of fluid ounces of Baythroid® XL 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® XL 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.

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 decisions. 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.

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FIELD CROPS

RECOMMENDED APPLICATIONS – BAYTHROID® XL

For all crops, apply specific dosage of Baythroid® XL 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® XL 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® XL 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.**

Maximum usage when applying both cyfluthrin and beta-cyfluthrin products to the same crop within the same season:

Do not apply more than the maximum seasonal total for each product when used alone, and do not apply more than the combined maximum seasonal total for both products as outlined in the table below.

Crop	Maximum Seasonal Total for Either Product Used Alone (pounds active ingredient/acre)		Maximum Seasonal Total When Applying Both Products to the Same Crop (pounds active ingredient/acre)
	beta-cyfluthrin*	cyfluthrin**	beta-cyfluthrin* Plus cyfluthrin**
Alfalfa	0.1	0.2	0.2
Corn (field, pop, seed)	0.0875	0.175	0.175
Cotton	0.25	0.5	0.5
Grasses	0.06	0.12	0.12
Peanut	0.0655	0.131	0.131
Sorghum	0.0655	0.131	0.131
Soybean	0.0875	0.175	0.175
Sugarcane	0.1315	0.263	0.263
Sunflower	0.0655	0.131	0.131
Wheat	0.038	0.076	0.076
Cole Crops, CSG 5A	0.1	0.2	0.2
Cucurbits, CG 9	0.0875	0.175	0.175
Fruiting vegetables, CG 8	0.1315	0.263	0.263
Leafy vegetables, CG 4	0.1	0.2	0.2
Bean and pea, dry, CSG 6C	0.05	0.1	0.1
Pea, Southern	0.0825	0.165	0.165
Potato, Sweet potato and other tuberous and corm vegetables, CSG 1C	0.1315	0.263	0.263
Root vegetables (except sugarbeet), CSG 1B	0.11	0.22	0.22
Sweet corn	0.22	0.44	0.44
Citrus, CG 10	0.05	0.1	0.1
Grape	0.1	0.2	0.2
Hop	0.125	0.25	0.25
Pome fruit, CG 11	0.022	0.044	0.044
Stone fruit, CG 12	0.044	0.088	0.088
Tree nut crops, CG 14	0.022	0.044	0.044

*Baythrioid XL

**Any cyfluthrin product approved for crop use, including Baythroid 2 Emulsifiable Pyrethroid Insecticide

Specific directions for uses for labeled uses of Baythroid XL are provided in the following tables.

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ALFALFA		
PESTS CONTROLLED	**Rate fluid ounces/Acre**	**Rate lbs AI/Acre**
Alfalfa looper Cutworms Green cloverworm Meadow spittlebug Potato leafhopper	0.8 - 1.6	0.0065 - 0.0125
Alfalfa caterpillar 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 (1st and 2nd instar) Grape colaspis (adult) Japanese beetle (adult) June beetle (adult) Loopers Lygus bug Mexican bean beetle Stink bugs Tarnished plant bug Threecornered alfalfa hopper Velvetbean caterpillar Yellowstriped armyworm (1st and 2nd instar)	1.6 - 2.8	0.0125 – 0.022
Blotch leafminer Grasshoppers Western yellowstriped armyworm (1st and 2nd instar)	2.0 - 2.8	0.0155 – 0.022
PESTS SUPPRESSED		
Blue pea aphid Cowpea aphid Pea aphid Whitefly (adult)	2.8	0.022
Notes: Pre-Harvest Interval (PHI) or Pre-Grazing Interval: **7 days**. Maximum Baythroid® XL allowed per cutting: **3.2 fluid ounces/A (0.025 lbs AI/Acre)**. Maximum Baythroid® XL allowed per crop season: **12.8 fluid ounces/A (0.100 lbs AI/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.		

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CORN

Field Corn, Popcorn, Seed Corn (see Sweet Corn recommendations in Vegetable Crops Section)

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs AI/Acre
Black cutworm Flea beetles Granulate cutworm Sandhill cutworm	0.8 - 1.6	0.0065 – 0.0125
Armyworm (1st and 2nd 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) Leafhoppers Masked chafer (adult) Southern armyworm (1st and 2nd instar) Southern corn leaf beetle Southwestern corn borer* Stalk borer Stink bugs Webworm Western bean cutworm Yellowstriped armyworm (1st and 2nd instar)	1.6 - 2.8	0.0125 – 0.022
Grasshoppers	2.1 - 2.8	0.0165 – 0.022
Fall armyworm (1st and 2nd instar)	2.8	0.022

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

Maximum Baythroid® XL allowed per 7-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre).**

Maximum Baythroid® XL allowed per crop season: **11.2 fluid ounces/A (0.0875 lbs AI/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.

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.

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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® XL allowed per 7-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre).**

Maximum Baythroid® XL allowed per crop season: **11.2 fluid ounces/A (0.0875 lbs AI/Acre).**

APPLICATION INSTRUCTIONS:

Carrier Baythroid® XL 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® XL 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® XL 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® XL 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® XL not to exceed **2.8 fluid ounces/A (0.022 lbs AI/Acre).** Diminished control may occur when rates are decreased below the recommended minimum rates per 1000 row feet.

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COTTON		
PESTS CONTROLLED	**Rate fluid ounces/Acre**	**Rate lbs AI/Acre**
Cotton leafperforator Cotton leafworm Cutworms Thrips	0.8 – 1.6	0.0065 – 0.0125
Boll weevil Cabbage looper Cotton aphid Cotton bollworm* Cotton fleahopper Cucumber beetle European corn borer Flea beetles Garden webworm Lygus bug* Pink bollworm Saltmarsh caterpillar Southern garden leafhopper Stink bugs Tarnished plant bug* Threecornered alfalfa hopper Tobacco budworm* **Ovicidal Control:** Cotton bollworm and tobacco budworm	1.6 – 2.6	0.0125 – 0.0205
Grasshopper	2.0 – 2.8	0.0155 – 0.022
Beet armyworm (1st and 2nd instar) Cotton leafminer Fall armyworm (1st and 2nd instar) Soybean looper Yellowstriped armyworm	3.2	0.025
PESTS SUPPRESSED		
Whitefly (adult)	3.2	0.025

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

Maximum Baythroid® XL allowed per 3-day interval: **3.2 fluid ounces/A (0.025 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **32.0 fluid ounces/A (0.250 lbs AI/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.

GRASSES**		
PESTS CONTROLLED	**Rate fluid ounces/Acre**	**Rate lbs AI/Acre**
Armyworms	1.6 – 1.9	0.0125 – 0.015

Notes: Pre-Harvest Interval (PHI) for hay: **7 days**.
Pre-Grazing Interval for forage: **0 days**
Maximum Baythroid® XL allowed per hay cutting: **1.9 fluid ounces/A (0.015 lbs AI/Acre)**.
Maximum Baythroid® XL allowed per 28 days for forage: **1.9 fluid ounces/A (0.015 lbs AI/Acre)**.
~~Maximum Baythroid® XL allowed per year: **7.6 fluid ounces/A (0.06 lbs AI/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 AI/Acre**
Cutworms Green cloverworm Potato leafhopper Rednecked peanutworm Velvetbean caterpillar	1.0 – 1.8	0.008 – 0.014
Armyworm (1st and 2nd instar) Bean leaf beetle Corn earworm Corn rootworms (adult) Grape colaspis (adult) Grasshoppers Japanese beetle (adult) June beetle (adult) Stink bugs Threecornered alfalfa hopper Vegetable weevil	1.8 – 2.4	0.014 – 0.019
Beet armyworm (1st and 2nd instar) Fall armyworm (1st and 2nd instar) Southern armyworm (1st and 2nd instar) Whitefringed beetle (adult)	2.4 – 2.8	0.019 – 0.022
PESTS SUPPRESSED		
Soybean looper Thrips Whitefly (adult)	2.8	0.022

Notes: Pre-Harvest Interval (PHI): **14 days (minimum time between final application and threshing for seed)**.
Maximum Baythroid® XL allowed per 10-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre)**.
Maximum Baythroid® XL allowed per crop season: **8.4 fluid ounces/A (0.0655 lbs AI/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.
**** Use not permitted in CA unless accompanied by supplemental label.**

SORGHUM		
PESTS CONTROLLED	**Rate fluid ounces/Acre**	**Rate lbs AI/Acre**
Cutworms Sorghum midge	1.0 – 1.3	0.008 – 0.010
Armyworm (1st and 2nd instar) Beet armyworm (1st and 2nd instar) Black wooly bear European corn borer* Fall armyworm (1st and 2nd instar) False chinch bug Flea beetle Sorghum headworm (corn earworm) Sorghum webworm Southern armyworm (1st and 2nd instar) Southwestern corn borer* Stalk borer* Stink bugs Webworms Yellowstriped armyworm (1st and 2nd instar)	1.3 – 2.8	0.010 – 0.022
Chinch bug Grasshoppers Sugarcane rootstock weevil	2.0 – 2.8	0.019 – 0.022

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® XL allowed per 10-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **8.4 fluid ounces/A (0.0655 lbs AI/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.

SOYBEAN		
PESTS CONTROLLED	**Rate fluid ounces/Acre**	**Rate lbs AI/Acre**
Cutworms Potato leafhopper Thrips Green cloverworm	0.8 – 1.6	0.0065 – 0.0125
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 (1st and 2nd instar) Grape colaspis (adult) Japanese beetle (adult) June beetle (adult) Lygus bug Masked chafer (adult) Mexican bean beetle Saltmarsh caterpillar Silverspotted skipper Southern armyworm (1st and 2nd instar) Stink bugs Tarnished plant bug* Threecornered alfalfa hopper Tobacco budworm* Velvetbean caterpillar Webworm Woolybear caterpillar Yellowstriped armyworm	1.6 – 2.8	0.0125 – 0.022
Grasshoppers Soybean aphid	2.0 – 2.8	0.0155 – 0.022
PESTS SUPPRESSED		
Lesser cornstalk borer Soybean looper*	2.8	0.022

Notes: Pre-Harvest Interval (PHI) or feeding of dry vines: **45 days**. Green forage may be fed 15 days after last application.
Maximum Baythroid® XL allowed per 7-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre)**.
Maximum Baythroid® XL allowed per crop season: **11.2 fluid ounces/A (0.0875 lbs AI/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.

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SUGARCANE		
PESTS CONTROLLED	**Rate fluid ounces/Acre**	**Rate lbs AI/Acre**
Sugarcane borer*	2.1	0.0165
Rice stalk borer*	2.8	0.022

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

Maximum Baythroid® XL allowed per 7-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **16.8 fluid ounces/A (0.1315 lbs AI/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 AI/Acre**
Cutworms Sunflower beetle	0.8 – 1.6	0.0065 – 0.0125
Sunflower stem weevil (adult)	1.6 – 2.4	0.0125 – 0.019
Banded sunflower moth Grasshoppers Stink bugs Sunflower bud moth Sunflower headclipping weevil Sunflower midge Sunflower moth Sunflower seed weevil	2.0 – 2.8	0.0155 – 0.022
Palestripped flea beetle	2.8	0.022

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

Maximum Baythroid® XL allowed per 7-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **8.4 fluid ounces/A (0.0655 lbs AI/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 AI/Acre
Army cutworm Cereal leaf beetle Cutworms	1.0 – 1.8	0.008 – 0.014
Armyworm Bird cherry-oat aphid* English grain aphid* Fall armyworm (1st and 2nd instar) Flea beetles Grasshoppers Grass sawfly Pale western cutworm Russian wheat aphid* Southern armyworm (1st and 2nd instar) Stink bugs Yellowstriped armyworm	1.8 – 2.4	0.014 – 0.019
Chinch bug	2.4	0.019

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

Maximum Baythroid® XL allowed per 3-day interval: **2.4 fluid ounces/A (0.019 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **4.8 fluid ounces/A (0.038 lbs AI/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® XL

For all crops, apply specific dosage of Baythroid® XL 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® XL 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® XL 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:

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

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs AI/Acre
Cutworms Potato leafhopper Thrips	0.8 – 1.6	0.0065 – 0.0125
Alfalfa looper Cabbage looper Cabbage webworm Imported cabbageworm Southern cabbageworm	1.6 – 2.4	0.0125– 0.019
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) Lygus bug Meadow spittlebug Southern armyworm (1st and 2nd instar) Stink bugs Tarnished plant bug* Vegetable weevil (adult) Yellowstriped armyworm	2.4 – 3.2	0.019– 0.025
PESTS SUPPRESSED		
Whitefly (adult)	3.2	0.025

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

Maximum Baythroid® XL allowed per 7-day interval: **3.2 fluid ounces/A (0.025 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **12.8 fluid ounces/A (0.10 lbs AI/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:

Balsam apple, Balsam 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 Claus 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, acorn squash and spaghetti squash)

.PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs AI/Acre
Cutworms Potato leafhopper	0.8 – 1.6	0.0065 – 0.0125
Armyworm Cabbage looper Corn earworm Grasshoppers Melonworm Pickleworm Rindworm Stink bugs	1.6 – 2.4	0.0125 – 0.019
Cucumber beetle Lygus bug Stripped cucumber beetle Tarnished plant bug * Tobacco budworm	2.4 – 2.8	0.019– 0.022
PESTS SUPPRESSED		
Whitefly (adult)	2.8	0.022

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

Maximum Baythroid® XL allowed per 7-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre).**

Maximum Baythroid® XL allowed per crop season: **11.2 fluid ounces/A (0.0875 lbs AI/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.

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

FRUITING VEGETABLES

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

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

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs AI/Acre
Celery leaftier Colorado potato beetle * European corn borer Garden webworm Potato aphid Potato leafhopper Stink bugs Tomato fruitworm (corn earworm) Tomato hornworm	1.6 – 2.8	0.0125 – 0.022
Beet armyworm (1st and 2nd instar) Cabbage looper Southern armyworm (1st and 2nd instar) Tarnished plant bug * Thrips (except *Thrips palmi*) Tomato pinworm Variegated cutworm Western yellowstriped armyworm (1st and 2nd instar)	2.1 – 2.8	0.0165 – 0.022
Flea beetles	2.8	0.022
PESTS SUPPRESSED		
Leafminers Pepper weevil Whitefly (adult)	2.8	0.022

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

Maximum Baythroid® XL allowed per 7-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre).**

Maximum Baythroid® XL allowed per crop season: **16.8 fluid ounces/A (0.1315 lbs AI/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.**

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 fennel**, 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 AI/Acre
Cutworms Potato leafhopper Thrips	0.8 – 1.6	0.0065 – 0.0125
Alfalfa looper Cabbage looper Green cloverworm Imported cabbageworm Saltmarsh caterpillar	1.6 – 2.4	0.0125 – 0.019
Beet armyworm (1st and 2nd instar) Corn earworm Diamondback moth (larvae)* European corn borer Fall armyworm (1st and 2nd instar) Flea beetles Grasshoppers Japanese beetle (adult) Lygus bug Meadow spittlebug Southern armyworm (1st and 2nd instar) Stink bugs Tarnished plant bug* Vegetable weevil (adult) Yellowstriped armyworm	2.4 – 3.2	0.019 – 0.025
PEST SUPPRESSED		
Whitefly (adult)	3.2	0.025

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

Maximum Baythroid® XL allowed per 7-day interval: **3.2 fluid ounces/A (0.025 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **12.8 fluid ounces/A (0.10 lbs AI/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.**

**** Use not permitted in CA unless accompanied by supplemental 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 lbs AI/Acre
Cutworms Potato leafhopper	0.8 – 1.6	0.0065 – 0.0125
Cowpea curculio* Stink bugs Tarnished plant bug*	1.6 – 2.4	0.0125 – 0.019
Bean leaf beetle Bean leaf webber Beet armyworm (1st and 2nd instar) Blister Beetle Cabbage looper Corn earworm Cucumber beetle European corn borer Fall armyworm (1st and 2nd instar) Grasshoppers Green cloverworm Japanese beetle (adult) Lygus bug Mexican bean beetle Pea leaf weevil Pea weevil Saltmarsh caterpillar Silverspotted skipper Soybean looper* Threecornered alfalfa hopper Tobacco budworm* Velvetbean caterpillar Webworm Woolybear caterpillar Yellowstriped armyworm	2.4 – 3.2	0.019– 0.025
PEST SUPPRESSED		
Pea aphid	3.2	0.025

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

Maximum Baythroid® XL allowed per 14-day interval: **3.2 fluid ounces/A (0.025 lbs AI/Acre).**

Maximum Baythroid® XL allowed per crop season: **6.4 fluid ounces/A (0.50 lbs AI/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.

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

PEA, SOUTHERN		
PESTS CONTROLLED	**Rate fluid ounces/Acre**	**Rate lbs AI/Acre**
Cutworms Potato leafhopper	0.8 – 1.6	0.0065 – 0.0125
Beet armyworm (1st and 2nd instar) Corn earworm Cowpea curculio Fall armyworm (1st and 2nd instar) Grasshoppers Lygus bug Stink bugs Southern armyworm (1st and 2nd instar) Tarnished plant bug* Thrips Yellowstriped armyworm	1.6 – 2.1	0.0125 - 0.0165
Notes: Pre-Harvest Interval (PHI): **3 day**. Maximum Baythroid® XL allowed per 5-day interval: **2.1 fluid ounces/A (0.0165 lbs AI/Acre)**. Maximum Baythroid® XL allowed per crop season: **10.5 fluid ounces/A (0.0825 lbs AI/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**, Tumeric**, Yam bean****

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs AI/Acre
Cutworms Potato leafhopper	0.8 - 1.6	0.0065 – 0.0125
Cabbage looper Colorado potato beetle* Eggplant flea beetle European corn borer Potato flea beetle Potato psyllid Potato tuberworm Tarnished plant bug*	1.6 - 2.8	0.0125 – 0.022
PESTS SUPPRESSED		
Aphids	2.8	0.022

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® XL allowed per 5-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **16.8 fluid ounces/A (0.1315 lbs AI/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 chervil**, 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 AI/Acre
Aster leafhopper Cutworms Flea Beetle Potato leafhopper	1.6 – 2.8	0.0125 – 0.022
Carrot weevil	2.8	0.022

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

Maximum Baythroid® XL allowed per 7-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **14.0 fluid ounces/A (0.110 lbs AI/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.

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

SWEET CORN		
PESTS CONTROLLED	**Rate fluid ounces/Acre**	**Rate lbs AI/Acre**
Black cutworm Flea beetles Granulate cutworm Sandhill cutworm	0.8 - 1.6	0.0065 – 0.0125
Armyworm Bean leaf beetle Cereal leaf beetle Chinch bug Click beetle (adult) Corn earworm Corn rootworms (adult) Corn silk fly European corn borer Grape colaspis (adult) Japanese beetle (adult) Leafhoppers Masked chafer (adult) Southern armyworm (1st and 2nd instar) Southern corn leaf beetle Southwestern corn borer Stalk borer Stink bugs Webworm Western bean cutworm Yellowstriped armyworm (1st and 2nd instar)	1.6 - 2.8	0.0125 – 0.022
Grasshoppers	2.0 - 2.8	0.0155 – 0.022
Fall armyworm (1st and 2nd instar)	2.8	0.022

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

Maximum Baythroid® XL allowed per 2 day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **28.0 fluid ounces/A (0.220 lbs AI/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.

See CHEMIGATION statement in *Application Guidelines* section of this label.

TREE and VINE CROPS

RECOMMENDED APPLICATIONS – BAYTHROID® XL

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® XL 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® XL 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 lbs AI/Acre
Glassywinged sharpshooter	1.6 – 3.2	0.0125 – 0.025
Foliar feeding cutworms Fuller rose beetle (larvae and adults on foliage) Grasshoppers Root-weevil complex (larvae and adults on foliage)	2.4 – 3.2	0.019 – 0.025
Citrus thrips Katydid	6.4	0.05

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

Maximum Baythroid® XL allowed per 7-day interval: **6.4 fluid ounces/A (0.05 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **6.4 fluid ounces/A (0.05 lbs AI/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 acre, if sprayed to drip.

GRAPE **
Includes: Table grape, Raisin, Wine and Muscadine grape

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs AI/Acre
Glassywinged sharpshooter Grape leaf skeletonizer Western grape leaf skeletonizer	1.6 – 3.2	0.0125 – 0.025
Climbing cutworm Grape berry moth Grape bud beetle Grape cane gallmaker (adult) Grape flea beetle Grape leaffolder Grape leafhopper Grape leafroller Grape mealybug (crawlers) Omnivorous leafroller Orange tortrix Thrips Variegated leafhopper	2.4 – 3.2	0.019 – 0.025

Notes: Pre-Harvest Interval (PHI): **3 days.**
Maximum Baythroid® XL allowed per 14-day interval: **3.2 fluid ounces/A (0.025 lbs AI/Acre).**
Maximum Baythroid® XL allowed per crop season: **12.8 fluid ounces/A (0.100 lbs AI/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.
**** Use not permitted in CA unless accompanied by supplemental label.**

HOP

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs AI/Acre
Hop aphid Hop flea beetle Hop looper Hop plant bug	3.2	0.025

Notes: Pre-Harvest Interval (PHI): **7 days.**
Maximum Baythroid® XL allowed per 14-day interval: **3.2 fluid ounces/A (0.025 lbs AI/Acre).**
Maximum Baythroid® XL allowed per crop season: **16.0 fluid ounces/A (0.125 lbs AI/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 AI/Acre
Green fruitworm Potato leafhopper White apple leafhopper	1.4 – 2.0	0.011 – 0.0155
Codling moth Oriental fruit moth Spotted tentiform leafminer Stink bugs Tarnished plant bug Western tentiform leafminer	2.0 – 2.4	0.0155 – 0.019
Apple leafroller Apple maggot Ermine moth European apple sawfly Lesser appleworm Obliquebanded leafroller Pandemis leafroller Pear sawfly (larvae = pear slug) Periodical cicada Plum curculio Redbanded leafroller San Jose scale (crawlers) Tufted apple bud moth Variegated leafroller	2.4 – 2.8	0.019 – 0.022

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

Maximum Baythroid® XL allowed per 14-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **2.8 fluid ounces/A (0.022 lbs AI/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.

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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, Prune

PESTS CONTROLLED	Rate fluid ounces/Acre	Rate lbs AI/Acre
Green fruitworm Lesser peach tree borer White apple leafhopper	1.4 – 2.0	0.011 – 0.0155
Codling Moth Lygus bug Oriental fruit moth Stink bugs Tarnished plant bug	2.0 – 2.4	0.0155 – 0.019
American plum borer Black cherry aphid Cherry fruit fly Obliquebanded leafroller Omnivorous leafroller Peach twig borer Periodical cicada Plum curculio Redbanded leafroller Western cherry fruit fly	2.4 – 2.8	0.019 – 0.022

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

Maximum Baythroid® XL allowed per 14-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre).**

Maximum Baythroid® XL allowed per crop season: **5.6 fluid ounces/A (0.044 lbs AI/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.

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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 AI/Acre
Potato leafhopper White apple leafhopper	1.4 – 2.0	0.011 – 0.0155
Ants (on foliage) Codling moth Common earwig Filbertworm Leaffooted bug Navel orangeworm Pecan nut casebearer Pecan weevil Stink bugs Tarnished plant bug Twolined spittlebug	2.0 – 2.4	0.0155 – 0.019
Hickory shuckworm Obliquebanded leafroller Peach twig borer Walnut husk fly	2.4 – 2.8	0.019 – 0.022

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

Maximum Baythroid® XL allowed per 14-day interval: **2.8 fluid ounces/A (0.022 lbs AI/Acre)**.

Maximum Baythroid® XL allowed per crop season: **2.8 fluid ounces/A (0.022 lbs AI/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 500 gallons per acre, if sprayed to drip.

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

RATE CONVERSION CHART

FLUID OUNCES PER ACRE	LBS AI PER ACRE	ACRES PER GALLON
0.8	0.0065	160
1.0	0.008	128
1.2	0.0095	107
1.4	0.011	91
1.6	0.0125	80
1.8	0.014	71
2.0	0.0155	64
2.2	0.017	56
2.4	0.019	53
2.6	0.0205	49
2.8	0.022	46
3.0	0.0235	43
3.2	0.025	40
6.4	0.0500	20

RATE CONVERSION CHART FOR TREE AND VINE APPLICATIONS

FLUID OUNCES PER ACRE	FLUID OUNCES PER 100 GAL OF WATER WHEN USING SPRAY VOLUME OF:						
	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

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

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