



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:
10182-395

Date of Issuance:
JUNE 17, 1996

NOTICE OF PESTICIDE:
 Registration
 Reregistration

(under FIFRA, as amended)

Term of Issuance:
Conditional Registration Until November 15, 1996

Name of Pesticide Product:
WARRIOR 1EC

Name and Address of Registrant (include ZIP Code):

Zeneca Ag Products
1800 Concord Pike
Wilmington, DE 19850-5458

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to 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)(B) since you have agreed in your letter dated June 17, 1996 to:

1. The same terms and conditions for data generation as stipulated in our November 15, 1993 letter for use of lambda-cyhalothrin on cotton.
2. The terms and conditions stipulated by the Agency for conditional registration of cotton pyrethroid products, i.e., that the registration and tolerances will automatically expire on November 15, 1996 and November 15, 1997 respectively.
3. To follow risk mitigation policies as determined by the Spray Drift Task Force Data and Industries Cotton Pyrethroid Working Group (PWG). Current synthetic pyrethroid mitigation measure are interim and may be reconsidered or modified.
4. To submit product information (pounds or gallons produced) for this product for the fiscal year in which the use on various crops are conditionally registered in accordance with FIFRA Section 29. The fiscal year begins October 1 and ends September 30.

Signature of Approving Official:

George T. LaRocca
George T. LaRocca, Product Manager (13)

Date: June 17, 1996

and provided that you:

5. 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.

6. Make the following label changes:

a. Revise the EPA Registration Number to read, "EPA Reg. No. 10182-395."

b. Since the dermal sensitization study is found by Zeneca Ag Products to be positive for sensitizing potential and therefore self-validating the product is classified as a "Sensitizer." Based on the above information, revise the first paragraph of the precautionary statements to read as follows:

"May be fatal if swallowed. Harmful is absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash clothing before reuse."

c. The "STATEMENT OF PRACTICAL TREATMENT" must be revised to read as follows:

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.

OR

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or if available by administering syrup or ipecac. If person is unconscious, do not give anything by mouth and do not induce vomiting.

IF ON SKIN: Wash with plenty of soap and water. get medical attention.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF IN EYES: Flush eyes with plenty of water. Get medical attention.

May pose an aspiration pneumonia hazard.

d. Under the heading "AGRICULTURAL USE REQUIREMENTS"

DIRECTIONS FOR USE:

Revise the statement to read:

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, wear: "Coveralls over long-sleeved shirts and long pants, socks and chemical resistant footwear and chemical resistant gloves (such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate)."

Submit three (3) copies of revised labeling in accordance with the above revisions.

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 the applicable test guidelines, EPA may issue a notice to cancel this use under FIFRA 6(e).

You should also note that, regardless of whether you satisfy all applicable conditions, this conditional registration will expire automatically on November 15, 1996. Sale and distribution of the subject product bearing labeling for use on the registered crops after November 15, 1996 will be illegal.

Sincerely,

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

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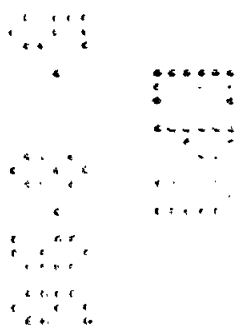
RESTRICTED USE PESTICIDE
Due to Toxicity to Fish and Aquatic Organisms

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

WARRIOR™ 1EC Insecticide

FOR USE TO CONTROL CERTAIN INSECTS ON SELECTED CROPS

COMPLETE DIRECTIONS FOR USE



EPA Reg. No. 10182-

ACCEPTED
with COMMENTS
in EPA Letter Dated

JUN 17 1996

Made in U.S.A.
ZENECA Ag Products
ZENECA Inc.
Wilmington, DE 19850-5458

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

10182-395

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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.)

ACTIVE INGREDIENT:

Lambda-cyhalothrin	
[1 α (S*),3 α (Z)]-(\pm)-cyano-(3-phenoxyphenyl)methyl-	
3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-	
dimethylcyclopropanecarboxylate	12.6%
INERT INGREDIENTS¹:	87.4%
Total	100.0%

WARRIOR™ 1EC contains 1 pound of active ingredient per gallon and is an emulsifiable concentrate containing cottonseed oil.
¹Contains petroleum distillates.

STATEMENT OF PRACTICAL TREATMENT

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.

IF SWALLOWED: Call a physician or Poison Control Center. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol. Do not induce vomiting.

IF INHALED: Remove victim to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF IN EYES: Hold eyelids open and flush with steady, gentle stream of water. Remove any contact lenses and repeat flushing procedure for several minutes. Get medical attention if irritation persists.

NOTE TO PHYSICIAN: Induced vomiting as first aid for this substance may result in increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent. Vomiting should be induced only under professional supervision. Probable mucosal damage may contraindicate the use of gastric lavage.

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL 1-800-F-A-S-T-M-E-D (327-8633).

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

May be fatal if swallowed. Harmful if absorbed through skin or inhaled. Avoid contact with eyes, skin or clothing. Avoid breathing spray mist. May cause allergic skin reactions.

Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hours after exposure and may last 2 to 30 hours, without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

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, socks and shoes.
- Chemical resistant gloves (such as nitrile, butyl, neoprene, and/or barrier laminate).

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

Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse.
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ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not 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 or weeds if bees are visiting the treatment area.

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

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**CONDITIONS OF SALE
AND LIMITATION OF WARRANTY AND LIABILITY**

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ZENECA or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ZENECA and Seller harmless for any claims relating to such factors.

ZENECA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ZENECA, and Buyer and User assume the risk of any such use. **ZENECA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

In no event shall ZENECA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ZENECA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ZENECA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

ZENECA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of ZENECA.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

This labeling must be in the possession of the user at the time of application.

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 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over long-sleeved shirt and long pants, socks and shoes.
 - Chemical-resistant gloves, such as nitrile, butyl, neoprene and/or barrier laminate.
-

STORAGE AND DISPOSAL

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

STORAGE: Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

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

Triple rinse (or equivalent); then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

FOR MINI-BULK, E-Z HANDLER® AND BOOMERANG CONTAINER DISPOSAL: Return container to ZENECA Inc. for reuse with seal intact and in salable condition.

CONTAINER PRECAUTIONS

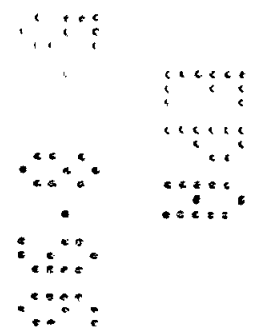
Before refilling RETURNABLE CONTAINERS, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices.

REFILL ONLY WITH WARRIOR™ 1EC INSECTICIDE. The contents of RETURNABLE CONTAINERS cannot be completely removed by cleaning. Refilling with materials other than WARRIOR™ 1EC insecticide will result in contamination and may weaken container.

After filling and before transporting, check for leaks.

Do not refill or transport damaged or leaking container.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!



GENERAL INSTRUCTIONS

Initial and residual control are contingent upon thorough crop coverage. Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gallons per acre by air or 10 gallons per acre by ground unless otherwise specified in this label. When foliage is dense or pest pressure is high (heavier insect or egg pressure, larger larval stages), use of higher application volumes and/or higher use rates may improve initial and residual control.

For cutworm control, WARRIOR™ 1EC may be applied before, during or after planting. For soil incorporated applications, use higher rates for improved control.

Resistance: 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, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

WARRIOR™ may be applied in the following states or portions of states: Arizona, Colorado, Connecticut, Delaware, Florida (all counties except Baker, Bay, Calhoun, Columbia, Duval, Escambia, Franklin, Gadsden, Gulf, Hamilton, Holmes, Jackson, Jefferson, Liberty, Leon, Madison, Nassau, Okaloosa, Santa Rosa, Suwannee, Wakulla, Walton, and Washington), Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Jersey, New Hampshire, New York, North Dakota, Ohio, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Dakota, Tennessee (counties of Stewart, Robertson, Montgomery, Cheatam, and Sumner), Utah, Vermont, Virginia (counties of Accomac and Northampton), Washington, West Virginia, Wisconsin, and Wyoming.

SPRAY DRIFT PRECAUTIONS

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

- Do not apply by ground within 25 feet, or by air within 150 feet of lakes; reservoirs; rivers; permanent streams, marshes, pot holes, or natural ponds; estuaries and commercial fish farm ponds: Increase the buffer zone to 450 feet when ultralow volume (ULV) application is made.
- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.



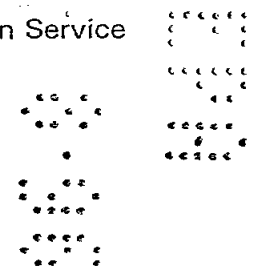
- For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.
- Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.
- Make aerial or ground applications when the wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.
- Risk of exposure to aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.
- Do not cultivate within 10 feet of the aquatic area so as to allow growth of a vegetative filter strip.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.
- Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

CHEMIGATION

SPRINKLER IRRIGATION APPLICATION: Apply WARRIOR™ 1EC insecticide at rates and timing described elsewhere in this label. Apply with center pivot or continuous-move equipment distributing 1/2 acre-inch or less during treatment. In general, use the least amount of water required for proper distribution and coverage. If stationary systems (solid sets, handlines or wheel lines other than continuous-move) are used, WARRIOR™ 1EC insecticide should be injected into no more than the last 20-30 minutes of the set. Do not apply when winds are greater than 10-15 mph to avoid drift or wind skips. Thorough coverage of foliage is required for good control. Good agitation should be maintained during the entire application period.

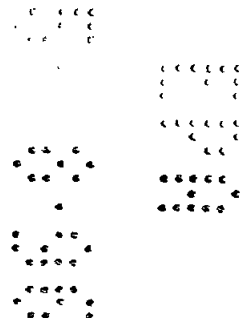
USE PRECAUTIONS - SPRINKLER IRRIGATION APPLICATION

- A. Apply this product only through (sprinkler including center pivot, lateral move, end tow, side [wheel] roll, traveler, big gun, solid set, or hand move) irrigation system(s). Do not apply this product through any other type of irrigation system.
- B. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- C. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.



- D. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- E. 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.
- F. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- G. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- H. 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.
- I. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- J. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- K. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- L. Do not apply when wind speed favors drift beyond the area intended for treatment
- M. Do not apply through chemigation systems connected to public water systems.

Apply WARRIOR™ 1EC insecticide as shown in the following chart:



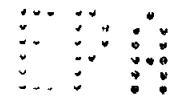
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SPRAY RECOMMENDATIONS

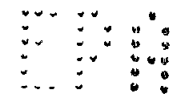
Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Broccoli	Alfalfa Looper Cabbage Looper Imported Cabbageworm Southern Cabbageworm Cutworm Spp. Cabbage Webworm.	0.015-0.025	1.92-3.20	<ul style="list-style-type: none"> • Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. • Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
	Diamondback Moth ³ Armyworm Beet Armyworm ^{1,3} Fall Armyworm ¹ Yellow-striped Armyworm Corn Earworm Flea Beetle Spp. Japanese Beetle (Adult) Vegetable Weevil (Adult) Grasshopper Spp. Leafhopper Spp. Plant Bug Spp. including Lygus Spp. ³ Stink Bug Spp. Meadow Spittlebug Aphid Spp. ^{2,3} Whitefly Spp. ^{2,3} Thrips Spp. ² Spider Mite Spp. ²	0.02-0.03	2.56-3.84	

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SPRAY RECOMMENDATIONS				
Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Cabbage	Alfalfa Looper Cabbage Looper Imported Cabbageworm Southern Cabbageworm Cutworm Spp. Cabbage Webworm	0.015-0.025	1.92-3.20	<ul style="list-style-type: none"> • Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. • Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
	Diamondback Moth ³ Armyworm Beet Armyworm ^{1,3} Fall Armyworm ¹ Yellow-striped Armyworm Corn Earworm Flea Beetle Spp. Japanese Beetle (Adult) Vegetable Weevil (Adult) Grasshopper Spp. Leafhopper Spp. Plant Bug Spp. including Lygus Spp. ³ Stink Bug Spp. Meadow Spittlebug Aphid Spp. ^{2,3} Whitefly Spp. ^{2,3} Thrips Spp. ² Spider Mite Spp. ²	0.02-0.03	2.56-3.84	

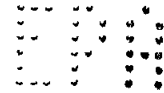
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SPRAY RECOMMENDATIONS

Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Corn Field Corn Popcorn Seed Corn	Cutworm Spp. Western Bean Cutworm ¹ Corn Earworm ¹ Green Cloverworm Meadow Spittlebug	0.015-0.025	1.92-3.20	<ul style="list-style-type: none"> • Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods. • Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gallons of water per acre.
	Tobacco Budworm ^{1,4} European Corn Borer ¹ Southwestern Corn Borer ¹ Stalk Borer ¹ Hop Vine Borer ¹ Armyworm ² Fall Armyworm ² Yellow-striped Armyworm ² Webworm Spp. Flea Beetle Spp. Western Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Southern Corn Rootworm Beetle (Adult) Mexican Corn Rootworm Beetle (Adult) Bean Leaf Beetle Cereal Leaf Beetle Japanese Beetle (Adult) Sting Bug Spp. Grasshopper Spp. Corn Leaf Aphid ³ Bird Cherry-Oat Aphid ³ English Grain Aphid ³	0.02-0.03	2.56-3.84	
	Beet Armyworm ^{2,4} Chinch Bug Green Bug ^{3,4}	0.03	3.84	<ul style="list-style-type: none"> • For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small corn. Direct spray to the base of corn plants. Repeat applications at 3- to 5-day intervals if needed. WARRIOR™ 1EC may only suppress heavy infestations and/or subsequent migrations. • For control of adult corn rootworm beetles (<i>Diabrotica</i> species) as part of an aerial applied corn rootworm control program use a minimum of 3.84 fl oz/A (0.03 lb ai/A). • Do not apply within 21 days of harvest. Do not apply more than 0.12 lb ai (0.96 pints) per acre per season. Do not apply more than 0.06 lb ai (0.48 pints) after silk initiation. Do not apply more than 0.03 lb ai (0.24 pints) after corn has reached the milk stage (yellow kernels with milky fluid). <p>¹For control before the larva bores into the plant stalk or ear. ²For control of the first and second instar only. ³Suppression only. ⁴See resistance statement under General Directions for Use.</p>

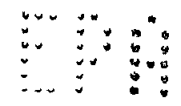
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SPRAY RECOMMENDATIONS

Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Sweet Corn	Corn Earworm Fall Armyworm ¹ Southern Armyworm ¹ Beet Armyworm ^{1,3} Yellow-Striped Armyworm ¹ Cutworm Spp. Western Bean Cutworm Webworm Spp. European Corn Borer Southwestern Corn Borer Common Cornstalk Borer Western Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Southern Corn Rootworm Beetle (Adult) Mexican Corn Rootworm Beetle (Adult) Japanese Beetle (Adult) Sap Beetle (Adult) Flea Beetle Spp. Tarnished Plant Bug Stink Bug Spp. Chinch Bug Aster Leafhopper Grasshopper Spp. Aphid Spp. ^{2,3} Spider Mite Spp. ²	0.02-0.03	2.56-3.84	<ul style="list-style-type: none"> • Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 4 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods and should be targeted for control before insects enter the stalk or ear. • Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage and ears (if present). When applying by air, apply in a minimum of 2 gallons of water per acre. • For control of adult corn rootworm beetles (<i>Diabrotica</i> species) as part of an aerial applied corn rootworm control program use a minimum of 3.2 fl oz/A (0.025 lb ai/A). • Do not apply within 1 day of harvest. • Do not apply more than 0.48 lb ai (3.84 pints) per acre per season. <p>¹For control of first and second instar only. ²Suppression only. ³See resistance statement under General Directions for Use.</p>

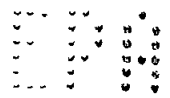
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SPRAY RECOMMENDATIONS

Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Cotton	Tobacco Thrips Soybean Thrips	0.015-0.02	1.92-2.56	<ul style="list-style-type: none"> • Apply as required by scouting, usually at intervals of 5 to 7 days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. • Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. • Applications may also be made with equipment adapted and calibrated for ULV sprays. WARRIOR™ 1EC may be mixed with once-refined vegetable oil and applied in a minimum of at least one quart of finished spray per acre. • Under light bollworm/budworm infestation levels, 0.02 lb ai/A may be applied in conjunction with intense field monitoring. • For boll weevil control spray on a 3 to 5 day schedule. • When applied according to label directions for control of cotton bollworm and tobacco budworm, WARRIOR™ 1EC insecticide also provides ovicidal control of unhatched <i>Heliothis</i> spp. eggs. • Do not apply within 21 days of harvest. • Do not graze livestock in treated areas. • Do not apply more than 1.6 pints (0.2 lb ai) per acre per season. • Do not make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include AMBUSH® insecticide, Ammo® insecticide, Asana® XL insecticide, Baythroid® emulsifiable pyrethroid insecticide, Capture® insecticide/miticide, Danitol® 2.4 EC Spray insecticide/miticide, Decis® insecticide, Fury™ insecticide, KARATE® insecticide, WARRIOR™ 1EC insecticide, Mustang® insecticide, Pounce®, Scout X-TRA® insecticide, and SynerGin™ 2 insecticide. <p>¹For control of the first and second instar only. ²Suppression only. ³See resistance statement under General Directions for Use.</p>
	Lygus Bug Spp. ³ Pink Bollworm Cabbage Looper Cotton Leafperforator Cutworm Spp. Saltmarsh Caterpillar Cotton Leafworm Cotton Fleahopper	0.02-0.03	2.56-3.84	
	Cotton Bollworm Tobacco Budworm ³ Boll Weevil Fall Armyworm Beet Armyworm ^{1,3} European Corn Borer Brown Stink Bug Green Stink Bug Southern Green Stink Bug Twospotted Spider Mite ² Cotton Aphid ^{2,3} Bandedwing Whitefly ^{2,3} Sweetpotato Whitefly ^{2,3}	0.025-0.04	3.20-5.12	

18/25



SPRAY RECOMMENDATIONS

Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Lettuce (Head)	Alfalfa Looper Cabbage Looper Imported Cabbageworm Cutworm Spp. Saltmarsh Caterpillar Green Cloverworm	0.015-0.025	1.92-3.20	<ul style="list-style-type: none"> • Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. • Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2½ gallons of water per acre.
	Diamondback Moth ³ Armyworm Beet Armyworm ^{1,3} Fall Armyworm ¹ Southern Armyworm Corn Earworm Tobacco Budworm ³ European Corn Borer Flea Beetle Spp. Japanese Beetle (Adult) Vegetable Weevil (Adult) Grasshopper Spp. Leafhopper Spp. Plant Bugs Including Lygus Spp. ³ Stink Bug Spp. Meadow Spittlebug Aphid Spp. ^{2,3} Whitefly Spp. ^{2,3} Spider Mite Spp. ²	0.02-0.03	2.56-3.84	

19/25



SPRAY RECOMMENDATIONS

Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Onion (Bulb and Garlic)	Cutworm Spp. Seedcorn Maggot (Adult) Onion Maggot (Adult) Leafminer Spp. (Adult)	0.015-0.025	1.92-3.20	<ul style="list-style-type: none"> Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Use the higher label rates as thrips population increases and avoid rescue situations. Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre. FOR THRIPS CONTROL BY AERIAL APPLICATION, THE ADDITION OF 1% COC OR 1/4% NIS V/V MAY ENHANCE THE DEPOSITION OF THE SPRAY AND INCREASE PLANT COVERAGE. Do not apply within 14 days of harvest. Do not apply more than 0.24 lb ai (1.92 pints) per acre per season. <p>¹For control of the first and second instar only. ²Suppression only. ³See resistance statement under General Directions for Use.</p>
	Armyworm Spp. ¹ Onion Thrips Tobacco Thrips Western Flower Thrips ^{2,3} Flower Thrips ² Aphid Spp. ² Plant Bug Spp. Stink Bug Spp.	0.02-0.03	2.56-3.84	
Peanut	Cutworm Spp. Green Cloverworm Velvetbean Caterpillar Red-necked Peanut Worm Potato Leafhopper	0.015-0.025	1.92-3.20	<ul style="list-style-type: none"> Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre. Do not apply within 14 days of harvest. Do not apply more than 0.12 lb ai (0.96 pints) per acre per season. Do not graze livestock in treated areas. Do not use treated vines or hay for animal feed. <p>¹For control of the first and second instar only. ²Suppression only. ³See resistance statement under General Directions for Use.</p>
	Corn Earworm Fall Armyworm ¹ Bean Leaf Beetle Southern Corn Rootworm (Adult) Vegetable Weevil Whitefringed Beetle (Adult) Stink Bug Spp. Tobacco Thrips Grasshopper Spp.	0.02-0.03	2.56-3.84	
	Beet Armyworm ^{1,3} Soybean Looper ^{2,3} Lesser Cornstalk Borer ² Spider Mite Spp. ² Aphid Spp. ²	0.03	3.84	

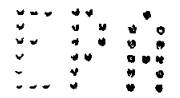
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SPRAY RECOMMENDATIONS

Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Sorghum (Grain)	Cutworm Spp. Sorghum Midge	0.015-0.02	1.92-2.56	<ul style="list-style-type: none"> Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gallons of water per acre. For sorghum midge control, begin applications when 25% of the sorghum heads have emerged and are in tip bloom. Repeat applications at 5-day intervals if needed. For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small sorghum. Direct spray to the base of sorghum plants. Repeat applications at 3- to 5-day intervals if needed. WARRIOR™ 1EC may only suppress heavy infestations and/or subsequent migrations. Do not apply within 30 days of harvest. Do not apply more than 0.08 lb ai (0.64 pints) per acre per season. Do not apply more than 0.06 lb ai (0.48 pints) per acre per season after crop emergence. Do not apply more than 0.02 lb ai (0.16 pints) per acre per season once crop is in soft dough stage. Do not graze livestock in treated areas or harvest for fodder, silage or hay. <p>¹For control of the first and second instars only. ²For control before the larva bores into the plant stalk. ³See resistance statement under General Directions for Use.</p>
	Armyworm Beet Armyworm ^{1,3} Fall Armyworm ¹ Yellow-striped Armyworm ¹ Corn Earworm Webworm Spp. European Corn Borer ² Southwestern Corn Borer ² Lesser Cornstalk Borer ² Flea Beetle Spp. Stink Bug Spp. Grasshopper Spp.	0.02-0.03	2.56-3.84	
	Chinch Bug	0.03	3.84	

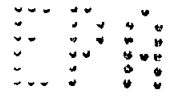
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SPRAY RECOMMENDATIONS

Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Soybean	Corn Earworm Velvetbean Caterpillar Green Cloverworm Cabbage Looper Saltmarsh Caterpillar Woollybear Caterpillar Cutworm Spp. Bean Leaf Beetle Mexican Bean Beetle Western Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Southern Corn Rootworm Beetle (Adult) Mexican Corn Rootworm Beetle (Adult) Three-Cornered Alfalfa Hopper Potato Leafhopper Thrips Spp.	0.015-0.025	1.92-3.20	<ul style="list-style-type: none"> • Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. • Do not graze or harvest treated soybean forage, straw or hay for livestock feed. • Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre. • For control of adult corn rootworm beetles (<i>Diabrotica</i> species) as part of an aerial applied corn rootworm control program use a minimum of 2.56 fl oz/A (0.02 lb ai/A). • Do not apply within 45 days of harvest. Do not apply more than 0.06 lb ai (0.48 pints) per acre per season. <p>¹For control of the first and second instar only. ²Suppression only. ³See resistance statement under General Directions for Use.</p>
	Armyworm ¹ Fall Armyworm ¹ Yellow-striped Armyworm ¹ Tobacco Budworm ³ Webworm Spp. European Corn Borer Silverspotted Skipper Japanese Beetle (Adult) Blister Beetle Spp. Stink Bug Spp. Plant Bug Spp. Grasshopper Spp.	0.025-0.03	3.20-3.84	
	Beet Armyworm ^{1,3} Soybean Looper ^{2,3} Lesser Cornstalk Borer ² Spider Mite Spp. ²	0.03	3.84	

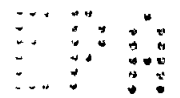
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SPRAY RECOMMENDATIONS

Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Sunflower	Sunflower Beetle Cutworm Spp.	0.015-0.025	1.92-3.20	<ul style="list-style-type: none"> • Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. • Apply with ground or air equipment using sufficient water to obtain full coverage of sunflower heads and/or foliage. When applying by air, apply in a minimum of 2 gallons of water per acre. • Do not apply within 45 days of harvest. Do not apply more than 0.12 lb ai (0.96 pints) per acre per season. Do not apply more than 0.09 lb ai (0.72 pints) per acre per season after bloom initiation. Do not apply as an ultra low volume (ULV) spray. <p>¹For control of first and second instar only. ²Suppression only. ³See resistance statement under General Directions for Use.</p>
	Sunflower Moth Banded Sunflower Moth Fall Armyworm ¹ Woolly Bear Caterpillar Spotted Cabbage Looper Painted Lady Caterpillar Thistle Caterpillar Seed Weevil (Adult) Stem Weevil (Adult) Head-Clipper Weevil (Adult) Japanese Beetle (Adult) Sunflower Maggot (Adult) Leafhopper Spp. Meadow Spittlebug Stinkbug Spp. Grasshopper Spp.	0.02-0.03	2.56-3.84	
	Beet Armyworm ^{1,3} Spider Mite Spp. ²	0.03	3.84	

23/25



SPRAY RECOMMENDATIONS

Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Tomato and Tomatillo	Cabbage Looper Cutworm Spp. Hornworm Spp.	0.015-0.025	1.92-3.20	<ul style="list-style-type: none"> • Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. • Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre. • Do not apply within 5 days of harvest. Do not apply more than 0.36 lb ai (2.88 pints) per acre per season. • Do not use on varieties in which the mature tomatoes will be less than one inch in diameter (such as cherry tomatoes). <p>¹For control of first and second instar only. ²Suppression only. ³See resistance statement under General Directions for Use.</p>
	Tomato Fruitworm Tobacco Budworm ³ Tomato Pinworm Beet Armyworm ^{1,3} Southern Armyworm ¹ Yellow-striped Armyworm ¹ Fall Armyworm ¹ European Corn Borer Leafminer Spp. ² Colorado Potato Beetle ³ Flea Beetle Spp. Grasshopper Spp. Leafhopper Spp. Aphid Spp. ^{2,3} Whitefly Spp. ^{2,3} Meadow Spittlebug Stink Bug Spp. Plant Bug Spp.	0.02-0.03	2.56-3.84	

24/25



SPRAY RECOMMENDATIONS

Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Wheat, Wheat Hay, and Triticale	Cutworm Spp. Army Cutworm	0.015-0.025	1.92-3.20	<ul style="list-style-type: none"> • Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. • Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre. • For chinch bug control, repeat applications at 3- to 5-day intervals if needed. WARRIOR™ 1EC may only suppress heavy infestations and/or migrations. • Greenbug is known to have many biotypes. WARRIOR™ 1EC may provide suppression only. In this situation, a second application using an alternative chemistry may be needed. • Do not apply within 30 days of harvest. • Do not apply more than 0.06 lb ai (0.48 pints) per acre per season. <p>¹Best control is obtained before insects begin to roll leaves. Once wheat has started to boot, WARRIOR™ 1EC may provide suppression only. Higher rates and increased coverage will be necessary. ²See resistance statement under General Directions for Use.</p>
	Armyworm Fall Armyworm Yellow-striped Armyworm Flea Beetle Spp. Cereal Leaf Beetle Stink Bug Spp. English Grain Aphid ¹ Russian Wheat Aphid ¹ Bird Cherry-Oat Aphid ¹ Grasshopper Spp.	0.02-0.03	2.56-3.84	
	Grass Sawfly	0.025-0.03	3.20-3.84	
	Chinch Bug Greenbug ^{1,2}	0.03	3.84	

RATE CONVERSION CHART

LB AI PER ACRE	FL OZ PER ACRE	PINTS PER ACRE	TREATED ACRES PER GALLON
0.015	1.92	0.12	66
0.02	2.56	0.16	50
0.025	3.20	0.20	40
0.03	3.84	0.24	33
0.04	5.12	0.32	25

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