



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

March 10, 2004

Fred J. Pearson
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, NC 27419

Subject: Label Amendment - Updating First Aid Statement per PR Notice 2001-1,
Warrior IEC Insecticide
EPA Reg. No. 100-1086
Your Submission Dated September 23, 2003

Dear Mr. Pearson:

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

1. Delete "In no event shall Syngenta or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product." from the Warranty statement. This statement is overly broad and implies buyer has no legal right to recover damages from manufacturer and is unacceptable under statutory and regulatory standards. We recommend revising it to read "To the extent permitted by law Syngenta or Seller shall not be liable for any etc"
2. On page 8 delete the entire paragraph beginning "Warrior IEC may be applied in the following states etc." We discussed our concerns with this type of language under EPA Reg. No. 100-1112.
3. Under the Ingredients Statement, replace "Inert Ingredients" with "Other Ingredients".

4. Add the following grazing restrictions to the remarks section under Wheat:

“Do not allow livestock to graze in treated areas or harvest treated wheat forage as feed for meat or dairy animals within 7 days after last treatment. Do not feed treated straw to meat or dairy animals within 30 days after the last treatment.”

If you have any questions regarding this action, please contact BeWanda Alexander of my team at (703) 305-7460.

Sincerely,



George T. LaRocca

Product Manager (13)

Insecticide Branch

Registration Division (7505C)

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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

Active Ingredient:

Lambda-cyhalothrin

[$\alpha(S^*), 3\alpha(Z)$]-(\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.

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.)

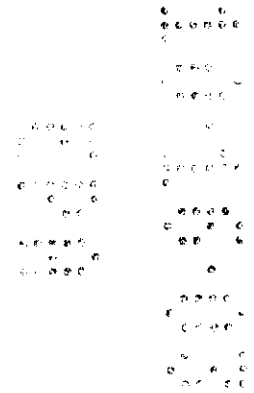
EPA Reg. No. 100-1086

EPA Est. No.

SCP 1086A-M(draft first aid)

Net Contents

ACCEPTED
with COMMENTS
In EPA Letter Dated
MAR 10 2004
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
100-1086



FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 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 on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
NOTE TO PHYSICIAN	
Contains petroleum distillate – vomiting may cause aspiration pneumonia.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER	
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING

May be fatal if swallowed. Harmful if 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 hands thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash clothing before reuse.

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

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 Syngenta Crop Protection, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Syngenta and Seller harmless for any claims relating to such factors.

Syngenta 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 Syngenta, and Buyer and User assume the risk of any such use. SYNGENTA 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 Syngenta 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 SYNGENTA 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 SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Syngenta and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and of Liability, which may not be modified except by written agreement signed by a duly authorized representative of Syngenta.

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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.

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 shirt and long pants, socks and chemical-resistant footwear and
- 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.

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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 Syngenta Crop Protection, 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 INFORMATION

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.

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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 1EC 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 ultra-low 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.

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- 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 $\frac{1}{2}$ 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.

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- 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:

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	<ul style="list-style-type: none"> Do not apply within 1 day of harvest. Do not apply more than 0.24 lb ai (1.92 pints) per acre per season. <p>¹ For control of first and second instar only. ² Suppression only. ³ See 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	
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. Do not apply within 1 day of harvest. Do not apply more than 0.24 lb ai (1.92 pints) per acre per season. <p>¹ For control of first and second instar only. ² Suppression only. ³ See resistance statement under General Directions for Use.</p>
	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. 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>¹ For control before the larva bores into the plant stalk or ear. ² For control of the first and second instar only. ³ Suppression only. ⁴ See resistance statement under General Directions for Use.</p>
	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) Stink 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 ^{3,4} Green Bug ^{3,4}	0.03	3.84	

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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>¹ For control of first and second instar only. ² Suppression only. ³ See 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>¹ For control of the first and second instar only. ² Suppression only. ³ See 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 Two-Spotted Spider Mite ² Cotton Aphid ^{2,3} Bandedwing Whitefly ^{2,3} Sweetpotato Whitefly ^{2,3}	0.025-0.04	3.20-5.12	

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SPRAY RECOMMENDATIONS				
Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
Lettuce (Head)	Alfaifa 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 2 gallons of water per acre. Do not apply within 1 day of harvest. Do not apply more than 0.3 lb ai (2.4 pints) per acre per season. <p>¹ For control of first and second instar only. ² Suppression only. ³ See resistance statement under General Directions for Use.</p>
	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	

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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>¹ For control of the first and second instar only. ² Suppression only. ³ See 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	

19/27

SPRAY RECOMMENDATIONS				
Crop	Target Pests	Rate		Remarks
		lb ai/A	fl oz/A	
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>¹ For control of the first and second instar only. ² Suppression only. ³ See 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	

20/27

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>¹ For control of the first and second instars only. ² For control before the larva bores into the plant stalk. ³ See 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	

21/27

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>¹ For control of the first and second instar only. ² Suppression only. ³ See 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	

22/27

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>¹ For control of first and second instar only. ² Suppression only. ³ See 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	

23/27

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>¹ For control of first and second instar only. ² Suppression only. ³ See 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	

LR/HR
24/27

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>¹ Best 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. ² See 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	

25/27

26/27

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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SCP 1086A-M(draft first aid)

27/21

CHRON

9/23/03 – Draft – Revised First Aid statement per PR Notice 2001-1