

100-669

8/13/2010

10428



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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Pat Dinnen  
Syngenta Crop Protection, Inc.  
P.O. Box 18300  
Greensboro, NC 27419

AUG 13 2010

Subject: Notifications; Per PR-Notice 98-10

✓ 100-669	Curacron 8E Insecticide-Miticide
100-893	Varsity Fire Ant Bait
100-894	Clinch Ant Bait
100-896	Avid 0.15 EC Miticide/Insecticide
100-897	Zephyr 0.15 EC Miticide/Insecticide
100-898	Agri-Mek 0.15 EC Miticide/Insecticide
100-903	Denim Insecticide
100-912	Fulfill Insecticide
100-1204	Avicta 500 FS

Dear Ms. Dinnen:

The Agency is in receipt of your Applications for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated August 6, 2010 for the products referenced above. The Registration Division (RD) has conducted a review of these requests for applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The labels submitted with the application have been stamped "Notification" and will be placed in our records.


If you have any questions regarding this letter, please contact me at (703) 306-0415 or [davis.kable@epa.gov](mailto:davis.kable@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Kable Bo Davis".

Kable Bo Davis  
Entomologist  
Insecticide-Rodenticide Branch  
Registration Division (7505P)

20928

 <b>Environmental Protection Agency</b> Washington, DC 20460	United States	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number
	<b>Notification</b>		
	(Empty space for OPP Identifier Number)		

**Application for Pesticide - Section I**

1. Company/Product Number 100-669	2. EPA Product Manager Venus Eagle	3. Proposed Classification <input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted
4. Company/Product (Name) Curacron 8E Insecticide-Miticide	PM# 1	
5. Name and Address of Applicant (Include ZIP Code) Syngenta Crop Protection, Inc. P. O. Box 18300 Greensboro, NC 27419  <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No. _____ Product Name _____

**Section - II**

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

NOTIFICATION  
 AUG 13 2010

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

Notification of label change per PR Notice 98-10.

This Notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA. The following changes are being made via this notification:

Removal of U.S. Patent No.

**Section - III**

<b>1. Material This Product Will Be Packaged In:</b>			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
*Certification must be submitted If "Yes" Unit Packaging wgt.    No. per Container		If "Yes" Unit Packaging wgt.    No. per container	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 15 gal.	
5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product			
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Other <u>Pressure Sensitive</u> <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)		
Name Pat Dinnen	Title Label Group Leader	Telephone No. (Include Area Code) 336-632-2494
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature <i>Pat Dinnen</i>	3. Title Regulatory Specialist	
4. Typed Name Pat Dinnen	5. Date August 6, 2010	



**FedEx**

August 6, 2010

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

Attention: Ms. Linda Arrington

**SUBJECT: NOTIFICATION PER PR NOTICE 98-10  
LABEL CHANGE TO REMOVE EXPIRED PATENT NUMBERS**

In accordance with PR Notice 98-10 Syngenta Crop Protection, Inc. is submitting Notification for several of our EPA registered products. The purpose of this Notification is to remove expired patent numbers from our labels. Syngenta is requesting these Notifications be expedited as soon as possible. Following are EPA Registration Numbers for this Notification.

100-640 – Prime+	100-896 – Avid 0.15EC	100-996 – Bonzi Ornamental Growth Regulator
100-669 – Curacron 8E Insecticide/Miticide	100-897 – Zephyr 0.15EC Miticide/Insecticide	100-1006 Probuild TC Termiticide
100-705 – Beacon Herbicide	100-898 – Agri-Mek 0.15EC Miticide/Insecticide	100-1131 – Callisto Herbicide
100-722 – Award Fire Ant Bait	100-903 – Denim Insecticide	100-1148 – Camix Selective Herbicide
100-768 Custom-Pak Amber	100-910 – Dual IIG Magnum Herbicide	100-1152 – Lumax Selective Herbicide
100-816 – Dual Magnum Herbicide	100-911 – Spirit Herbicide	100-1158 – Maxim MZ Fungicide
100-817 – Bicep II Magnum Herbicide	100-912 – Fulfill Insecticide	100-1161 – Expert Herbicide
100-818 – Dual II Magnum Herbicide	100-923 – NorthStar Herbicide	100-1165 – Brawn Herbicide
100-827 – Bicep Lite II Magnum Herbicide	100-927 – Rave Herbicide	100-1201 – Lexar Herbicide
100-829 – Dual II Magnum SI Herbicide	100-949 – Palisade EC	100-1204 – Avicta 500FS
100-849 – Solicam DF Herbicide	100-950 – Pennant Magnum Herbicide	100-1218 – Demon Max Insecticide
100-893 – Varsity Fire Ant Bait	100-964 – Medal Herbicide	100-1359 – Callisto Xtra
100-894 – Clinch Ant Bait	100-965 – Medal II Herbicide	



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Ms. Linda Arrington  
August 6, 2010  
Page 2

Attached are:

- One marked copy of the label showing where the patent number was deleted and one unmarked copy of the label for each EPA Registration Number.
- A CD of the unmarked label and the Certification with Respect to Label Integrity Form for each EPA Registration Number.
- Completed EPA Form 8570-1 for each EPA Registration Number.

Thank you in advance for approving this request. If you have any questions, please contact me at 336-632-2494.

Sincerely,

A handwritten signature in cursive script that reads "Pat Dinnen".

Pat Dinnen  
Label Group Leader

Enclosures

(Booklet)

**RESTRICTED USE PESTICIDE**

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  
DUE TO HIGH TOXICITY.

Curacron® 8E  
Insecticide-Miticide

Group	1B	Insecticide
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Closed System

For insect and mite control in cotton

Active Ingredient:

Profenofos (CAS No. 41198-08-7) ..... 73.0%

Other Ingredients\* ..... 27.0%

Total: 100.0%

\*Contains petroleum distillates

**NOTIFICATION**

**AUG 13 2010**

Curacron 8E contains 8 lbs. active ingredient per gal.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

Si usted no entiende 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.)

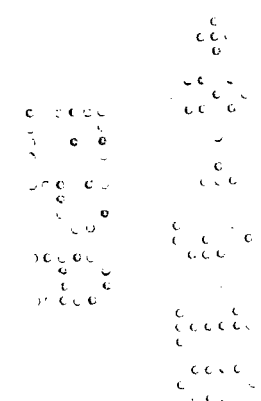
See additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-669  
EPA Est. XXXXX

Product of XXXXX  
Formulated in the USA

SCP 669A-L(5-19-09)

Net Contents



**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION**

Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

<b>FIRST AID</b>	
This product contains an organophosphate that inhibits cholinesterase	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give <b>any</b> liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15 – 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If Inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN</b>	
Contains petroleum distillate – vomiting may cause aspiration pneumonia.	
Contains an organophosphate (profenofos), that inhibits cholinesterase. Consider taking venous blood for determination of blood cholinesterase activity (use heparin tube). Administer atropine sulfate, either by intramuscular or intravenously, dependant on severity of poisoning. Specific antidotes are oximes such as Pralidoxime (2-PAM). Avoid the use of opiates and phenothiazine. Carefully monitor patient because continued absorption of the poison may occur resulting in fatal relapse after initial improvement.	

Have the product container or label with you when calling a poison control center or doctor or when 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**

**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 F on an EPA chemical –resistant category selection chart.

**Mixers, loaders, applicators, flaggers, and other handlers using engineering controls (see requirements below) must wear:**

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves Category F, such as barrier laminate, butyl rubber ≥14, nitrile rubber ≥14 or Viton® ≥14 and chemical-resistant apron when mixing and loading
- Protective eyewear

**Handlers, for which use of an engineering control is not possible or when engaged in activities such as cleaning up a spill or leak or cleaning or repairing contaminated equipment must wear:**

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves Category F, such as barrier laminate, butyl rubber ≥14, nitrile rubber ≥14 or Viton® ≥14
- Chemical-resistant footwear plus socks,
- Chemical-resistant apron
- Protective eyewear

**All mixers, loaders, applicators, and flaggers (except aerial applicators) must be provided, must have immediately available and must use in an emergency, such as a spill, or equipment failure or if exiting a cab in a treated area, the following personal protective equipment (PPE)**

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves Category F, such as barrier laminate, butyl rubber ≥14, nitrile rubber ≥14, or Viton® ≥14
- Chemical-resistant footwear plus socks,
- Chemical resistant apron
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product’s concentrate. Do not reuse them. Follow

manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **Engineering Control Statements**

#### **Closed System**

- Mixers and loaders must use a mechanical transfer system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4)] for providing dermal protection.
- The system must be capable of removing the pesticide from the shipping container and transferring it into mixing tanks and/or application equipment.
- At any disconnect point, the system must be equipped with a dry disconnect or dry couple shut-off device that is warranted by the manufacturer to minimize drippage to not more than 2 ml. per disconnect point.
- Persons using a closed system that operates under pressure shall wear protective eyewear.

#### **Enclosed Cab/Cockpit**

Pilots must:

- use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Ground equipment applicators and flaggers must:

- use an enclosed cab/cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)].



### User Safety Recommendations

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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.

**ADVISORY TO CERTIFIED CROP ADVISORS:** Users should inform Certified Crop Advisors [as defined by the Worker Protection Standard (WPS) that people engaged in scouting activities should wear coveralls, shoes and socks, and chemical-resistant gloves made of any waterproof material when entering treated areas during the first 48 hours following application (72 hours in areas where the average rainfall is less than 25 inches per year).

### Environmental Hazards

This pesticide is acutely toxic to fish and wildlife. Use with care when applying to areas frequented by wildlife or adjacent to any body of water. Due to the hazard to endangered fish, the application of this product is prohibited in Reeves County, TX and within one mile of the Dexter National Fish Hatchery in NM. For terrestrial uses, 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 contaminate water by cleaning of equipment or disposing of equipment wash water. Do not apply to saturated soil and do not treat while precipitation is occurring or while conditions favor runoff from the treated area due to the potential for surface water runoff that may cause fish kills. Do not apply with aircraft within 300 ft. or with ground boom equipment within 100 ft. of any body of water including impounded waters, rivers, streams, lakes, or oceans. Do not apply with aircraft when wind speed is greater than 10 mph. Use vegetative buffers

This product is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply this product or allow it to drift to crops or weeds on which bees are foraging. Additional information may be obtained from your Cooperative Agricultural Extension Service.

### Physical or Chemical Hazards

Combustible. Do not use or store near heat or open flame.

**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 must 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. To the extent permitted by applicable law, 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, 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 Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Apply this pesticide only as specified on this label.

#### 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), notification to workers, 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 48 hours.** The REI is 72 hours in areas where average rainfall is less than 25 inches per year.

PPE required for early entry into 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 made of any waterproof material Category F, such as barrier laminate, butyl rubber ≥14, nitrile rubber ≥14, or Viton® ≥14
- Shoes and socks
- Protective eyewear

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

#### Application Restrictions:

1. Cotton treated with this product must be mechanically harvested. Hand harvesting is prohibited.
2. Pilots are prohibited from participating in mixing or loading on the day of application.
3. Ground boom and aerial applicators must use enclosed cabs and cockpits.
4. Do not allow this product to drift.
5. 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.
6. **Chemigation:** Do not apply this product through any type of irrigation system.

**FAILURE TO FOLLOW ALL DIRECTIONS AND PRECAUTIONS ON THIS LABEL  
MAY RESULT IN CROP INJURY, POOR CONTROL, AND/OR ILLEGAL RESIDUES.**

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**ADDITIONAL INFORMATION**

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Curacron 8E is an emulsifiable insecticide-miticide which is effective for control of cotton bollworm, tobacco budworm, certain other insects, and mites on cotton.

Best results can be expected from fields under Pest Management/ Scouting programs.

When using Curacron 8E as a larvicide, best results will be obtained when application is timed to control first to third instar larvae.

**Resistance Management**

Curacron 8E contains a Group 1B insecticide (profenofos, belonging to the organophosphate class of chemistry) which has a specific mode of action and could be subject to development of resistant strains of insects. Development of resistance cannot be predicted. Therefore, Syngenta cannot assume liability for crop damage resulting from resistant strains of insects. If the treatment is ineffective due to the presence of resistant strains, neither Curacron 8E nor any other Group 1B insecticide will effectively control those pests. Consideration should then be given to the prompt use of other types of suitable insecticides. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance and information on resistance management strategies in your area.

**ROTATIONAL CROPS**

Fields treated with Curacron 8E may be rotated to other crops 30 days after the last application.

**SPRAY DRIFT****Aerial Spray Drift Management****A. Responsibility**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment - and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering these factors when making decisions about aerial application

## B. Drift Management Requirements

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops.

1. Nozzles must always point backwards parallel with the air stream and never be pointed downwards more than 45 degrees.
2. The distance of the outermost nozzles on the boom must not exceed  $\frac{3}{4}$  of the length of the wingspan or rotor.
3. Do not apply with aircraft when wind speed is greater than 10 mph.

When states have more stringent regulations, they should be followed. The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory** information section that follows.

## C. Aerial Drift Reduction Advisory

This section is advisory in nature and does not take the place of the mandatory requirements in the **Aerial Spray Drift Management** section

### 1. Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or made under unfavorable environmental conditions (see **Wind, Temperature, and Humidity and Temperature Inversions**).

### 2. Controlling Droplet Size

- a. **Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher-rated flows produce larger droplets.
- b. **Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- c. **Number of nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- d. **Nozzle Orientation** – Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is recommended. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- e. **Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the least drift.

### 3. Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

### 4. Application Height

Applications should not be made at a height greater than 10 ft. above the top of the tallest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### 5. Swath Adjustment

When applications are made during a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.)

### 6. Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

**NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### 7. Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are hot and dry.

### 8. Temperature Inversions

Applications should not be made during a temperature inversion because drift potential is high.

#### Temperature inversions:

- a. restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds that are common during inversions,

- b. are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind,
- c. begin to form as the sun sets and often continue into the morning,
- d. can be indicated by ground fog; however if fog is not present, inversions can be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind condition) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## 9. Sensitive Areas

Curacron 8E should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, or non-target crops) is minimal (for example, when wind is blowing away from the sensitive area).

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## MIXING INSTRUCTIONS

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1. Prepare no more spray mixture than is needed for the immediate operation.
2. Thoroughly clean spray equipment before using this product.
3. Agitate thoroughly before and during application. Good bypass agitation is sufficient to keep Curacron 8E in emulsion.
4. Do not let spray mixture stand overnight in the spray tank.
5. Rinse spray tank at the end of the day.

### Curacron 8E Alone

1. Add 2/3 of the required amount of water to the spray tank with the agitator running, then add the desired amount of Curacron 8E.
2. Continue agitation while adding the remainder of the water.

### Curacron 8E + Tank Mixtures

Add 2/3 of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. Add tank mix partners in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids and emulsifiable concentrates such as Curacron 8E. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

**Note:** When using Curacron 8E in tank mixtures, add all products in water-soluble packaging to the tank before any other tank mix partner, including Curacron 8E. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using Curacron 8E in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations, which appear on the tank mix product label. Do not exceed any label dosage rate, and follow the most restrictive label precautions and limitations. Do not mix this product with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

**Compatibility**

Curacron 8E is compatible with most commonly used agricultural pesticides and crop protection foliar products. However, since it is not possible to test all possible mixtures, the user should pre-test to assure the physical compatibility and lack of phytotoxic effect of any proposed mixtures with Curacron 8E. To determine the physical compatibility of Curacron 8E with other products, use a jar test, as described below.

Using a clear jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

The crop safety of all potential tank mixes on all crops has not been tested. Before applying any tank mixture not specifically recommended on this label, the safety to the target crop should be confirmed.

NOTE: Some foliar fertilizers can increase chances for phytotoxicity or decrease performance when tank mixed with Curacron 8E. Syngenta cannot be held responsible for the performance of Curacron 8E tank mixed with foliar fertilizers.



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**APPLICATION**

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**Buffer Zone Restrictions**

Follow the restrictions listed below when applying Curacron 8E near any body of water, including impounded waters, rivers, streams, lakes, and oceans.

1. Do not apply with aircraft within 300 ft. of any body of water.
2. Do not apply with ground boom equipment within 100 ft. of any body of water.

**Maximum Use Rates**

1. Do not apply more than 5 pts. (5 lb. a.i./A) per season. This includes all uses on all the listed pests (lepidopteran pests as well as all other listed pests) and all applications (alone, in a tank mix, with foliar nutrients and with oil).
2. Do not apply more than  $\frac{3}{4}$  pt. (0.75 lb. a.i./A) per application.

**NOTE:** For lepidopteran pests only (cotton bollworm, tobacco budworm, beet armyworm, fall armyworm), you may use 1 pt. (1.0 lb. a.i./A) per application with a maximum of 2 applications per season.

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**CROP USE DIRECTIONS**

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**Pre Harvest Interval (PHI)**

Do not apply Curacron 8E within 14 days of harvest when application is made in water carrier or within 30 days of harvest when application is made in oil carrier.

**Application Volume in Water**

Apply Curacron 8E at the specified rates below in water carrier at a minimum of 5 gals. finished solution/A with ground equipment, or in a minimum of 1 gal. finished solution/A by air. In late season, under heavy infestations, dense foliage and/or high temperatures, apply Curacron 8E in a minimum of 3 gals. finished solution/A to ensure maximum coverage.

**Application Volume in Oil (All cotton growing states)**

Apply Curacron 8E following use directions in the table below, selecting the amount of product to use and the application intervals according to the pest problem.

<b>Mixture</b>	<b>Amount of Finished Product to Use</b>
For ULV application, dilute Curacron 8E in once refined vegetable oil	Apply using 1-2 qts. of finished spray/A
Curacron 8E + water + emulsified vegetable oil	Add 1-2 pts. of emulsified vegetable oil as an additive. Apply using a minimum of 1 gal. total mixture/A

**Important:** When applying Curacron 8E in oil:

1. If the use rate permits 3 or more applications per season, make no more than 3 applications of Curacron 8E in oil per season.
2. Do not apply within 30 days of harvest.

**Application Timing**

Make application when economic thresholds are reached and repeat applications as needed based on scouting, usually at 5-7 day intervals. Economic thresholds will vary by locality. Consult your pest control advisor or cotton consultant to determine economic thresholds in your area.

**Crop Injury Precautions**

Applications to cotton may cause spotting or reddening of leaves. Avoid spray overlap because crop injury may result.

**Grazing Restrictions**

1. Do not allow livestock to graze treated cotton.
2. Do not feed gin trash or foliage from treated cotton plants to livestock.

Pest	Location	Amount of Curacron 8E to Apply	How Often to Apply	Instructions
Aphids <sup>1</sup>	All cotton growing states	½ pt./A	5-7 day intervals	Begin application when economic thresholds are reached and continue at 5-7 day intervals. Economic thresholds will vary by locality. Consult your pest control advisor or cotton consultant to determine economic thresholds in your area.
Plant bugs <sup>1</sup> Lygus bugs <sup>1*</sup>	All cotton growing states. *In AZ and CA Curacron offers suppression of lygus bugs.	¼ to ½ pt./A		
Cotton Bollworm	All cotton growing states except AZ and CA	<u>Contact Ovicide Activity:</u> 1/8 to ¼ pt./A	5-7 day intervals	Use the higher rate if plant bugs are also present.
		<u>Larvae Control Only:</u> ¾ to 1 pt./A <b>NOTE:</b> Do not make more than 2 applications per season at the 1 pt./A rate.	5-7 day intervals 5-6 day intervals may be necessary when infestation is heavy.	Apply 1 pt./A on large larvae and when infestation is heavy. Scout fields thoroughly and repeat application at 5-7 day intervals. 5-6 day intervals may be needed when infestation is heavy.
Tobacco Budworm <sup>1</sup>	All cotton growing states except AZ and CA	<u>Contact Ovicide Activity:</u> ¼ pt./A	5-7 day intervals	
		<u>Larvae Control Only:</u> ¾ to 1 pt./A <b>NOTE:</b> Do not make more than 2 applications per season at the 1 pt./A rate.	5-7 day intervals 5-6 day intervals may be necessary when infestation is heavy.	Apply 1 pt./A on large larvae and when infestation is heavy. Scout fields thoroughly and repeat application at 5-7 intervals. 5-6 day intervals may be needed when infestation is heavy.

Pest	Location	Amount of Curacron 8E to Apply	How Often to Apply	Instructions
Cotton bollworm Tobacco budworm <sup>1</sup>	AZ and CA	½ to ¾ pt./A	5-7 day intervals	Use this application rate for light to moderate infestations.
		¾ to 1 pt./A <b>NOTE:</b> Do not make more than 2 applications per season at the 1 pt./A rate.	5-7 day intervals	Use this application rate for moderate to heavy infestations.
Cotton leafperforator Beet armyworm <sup>1</sup>	All cotton growing states	1 pt./A <b>NOTE:</b> Do not make more than 2 applications per season at the 1 pt./A rate.	5-7 day intervals  5-6 day intervals may be necessary when infestations are heavy.	Begin application when egg masses and larvae first appear. Scout fields thoroughly to determine if repeat application is needed.
Fall armyworm	All cotton growing states	¾ to 1 pt./A <b>NOTE:</b> Do not make more than 2 applications per season at the 1 pt./A rate.	5-7 day intervals	Begin application when larvae first appear. For best results, apply to young larvae still feeding on leaf surfaces and before the larvae migrate to blooms and bolls.
Mites	All cotton growing states	½ to ¾ pt./A	5-7 day intervals	Begin when mites first appear.
Whitefly <sup>1</sup> Suppression	All cotton growing states	¾ pt./A	5-7 day intervals	Curacron 8E will aid in the reduction of whitefly populations. Begin treatment when whiteflies first appear.

<sup>1</sup> See Resistance statement under Additional Information

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**STORAGE AND DISPOSAL**

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

**Pesticide Storage**

Store the product in a dry, cool, and ventilated area. Keep container closed.

**Pesticide Disposal**

Pesticide wastes are toxic. 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 Handling [less than 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available 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.

**Container Handling [Bulk/Mini-Bulk]**


Refillable container. Refill this container with Curacron 8E only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

**Emergency Response**

In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

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~~U.S. Patent No. 3,992,533~~

Viton® is a registered trademark of E.I. DuPont de Nemours and Company  
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For non-emergency (e.g., current product information), call  
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for :  
Syngenta Crop Protection, Inc.  
P.O. Box 18300  
Greensboro, North Carolina 27419-8300

SCP 669A-L(5-19-09)

CUR 669A-L(5-19-09) – pl – 10/7/09  
CUR 669A-L(5-19-09) NOTIF AUG2010 – ea – 7/9/10  
000100-00669.20100805.PATENT\_NOTIF\_AUG2010-HI.pdf

(Non-detachable container label 15 gal.)

<p><b>RESTRICTED USE PESTICIDE</b></p> <p>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  DUE TO HIGH TOXICITY</p>
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Curacron® 8E  
Insecticide-Miticide

Group	<b>1B</b>	Insecticide
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Closed System

For insect and mite control in cotton

Active Ingredient:

Profenofos (CAS No. 41198-08-7) .....	73.0%
Other Ingredients*:	27.0%
<b>Total:</b>	<b>100.0%</b>

\*Contains petroleum distillates

Curacron 8E contains 8 lbs. active ingredient per gal.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

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.)

See additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-669  
EPA Est. xxxxx

SCP 669A-L (5-19-09)

Net Contents

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION**

Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

<b>FIRST AID</b>	
This product contains an organophosphate that inhibits cholinesterase	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give <b>any</b> liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15 – 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN</b>	
<p>Contains petroleum distillate – vomiting may cause aspiration pneumonia. Contains an organophosphate (profenofos) that inhibits cholinesterase. Consider taking venous blood for determination of blood cholinesterase activity (use heparin tube). Administer atropine sulfate, either by intramuscular or intravenously, dependant on severity of poisoning. Specific antidotes are oximes such as Pralidoxime (2-PAM). Avoid the use of opiates and phenothiazine. Carefully monitor patient because continued absorption of the poison may occur resulting in fatal relapse after initial improvement.</p>	



Have the product container or label with you when calling a poison control center or doctor or when 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**

**Environmental Hazards**

Apply this pesticide only as specified on this label. This pesticide is acutely toxic to fish and wildlife. Use with care when applying to areas frequented by wildlife or adjacent to any body of water. Due to the hazard to endangered fish, the application of this product is prohibited in Reeves County, TX and within one mile of the Dexter National Fish Hatchery in NM. For terrestrial uses, 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 contaminate water by cleaning of equipment or disposing of equipment wash water. Do not apply to saturated soil and do not treat while precipitation is occurring or while conditions favor runoff from the treated area due to the potential for surface water runoff that may cause fish kills. Do not apply with aircraft within 300 ft. or with ground boom equipment within 100 ft of any body of water including impounded waters, rivers, streams, lakes, or oceans. Do not apply with aircraft when wind speed is greater than 10 mph. Use vegetative buffers

This product is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply this product or allow it to drift to crops or weeds on which bees are foraging. Additional information may be obtained from your Cooperative Agricultural Extension Service.

**Physical or Chemical Hazards**

Combustible. Do not use or store near heat or open flame.

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

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**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 must 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. To the extent permitted by applicable law, 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, 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. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, 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 Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## DIRECTIONS FOR USE

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

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

### STORAGE AND DISPOSAL

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**Chemigation: Do not apply this product through any type of irrigation system.**

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U.S. Patent No. 3,992,533

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Manufactured for :  
Syngenta Crop Protection, Inc.  
P.O. Box 18300  
Greensboro, North Carolina 27419-8300

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