



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505C)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:  
264-841

Date of Issuance:  
AUG 1 2005

NOTICE OF PESTICIDE:  
 Registration  
 Reregistration

(under FIFRA, as amended)

Term of Issuance:  
Conditional

Name of Pesticide Product:  
Reign SC Plant Regulator

Name and Address of Registrant (include ZIP Code):

Bayer CropScience  
P.O. Box 12014  
2 T.W. Alexander Dr.  
Research Triangle, NC 27709

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

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

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

This product is conditionally registered in accordance with FIFRA Section 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA Section 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for registration of your product under FIFRA Section 4.
2. Make the following label change before you release the product for shipment; Revise the EPA Registration Number to read, "EPA Reg. No. 264-841."
3. Submit a storage and stability study (830.6317) and corrosion characteristics study (830.6320) by August 30, 2006.

Signature of Approving Official:

Tony Kish, Acting Product Manager 22  
Fungicide Branch

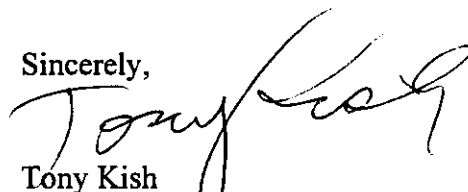
Date:

AUG 1 2005

4. In an effort to assure adequate guidance as it relates to mitigating primary eye irritation, include the following in the "Precautionary Statements" section: "Wear [*Registrant must specify appropriate protective eyewear such as goggles, face shield, or safety glasses*]. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco."
5. The section "User Safety Recommendations" must be appended with: "Users should 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."
6. Third statement in the "Restrictions" section of the label requires a deletion to: "small grain of leafy crops" and, insert "another crop" which is the appropriate limitation thereto. Consequently, delete the sentence: "Do not plant any crops...".
7. At each occurrence of the product name on the label where ounces is referenced, the correct unit: fluid ounces / fl. oz. must be used to assure guidance is unambiguous.
8. Append the following statement to the "Wind" subsection of "Controlling Droplet Size:": "Every applicator should be familiar with local wind patterns and how they affect spray drift."

If the enumerated conditions contained herein are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release of the product for shipment constitutes acceptance of these conditions.

Sincerely,



Tony Kish  
Acting Product Manager (22)  
Fungicide Branch  
Registration Division (7505C)

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# REIGN<sup>®</sup> SC Plant Regulator

## For Use on Cotton

### ACTIVE INGREDIENTS:

Cyclanilide (1-(2,4-dichlorophenylaminocarbonyl)-cyclopropane carboxylic acid)*	2.1%
Mepiquat chloride (N,N-dimethylpiperidinium chloride)**	8.4%

INERT INGREDIENTS:..... 89.5%

TOTAL: ..... 100.0%

\* Contains 0.184 pounds cyclanilide per gallon.

\*\* Contains 0.736 pounds mepiquat chloride per gallon.

EPA Reg. No. 264-XXX

EPA Est. No.

## KEEP OUT OF REACH OF CHILDREN CAUTION – CAUCION

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577

For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

### FIRST AID

<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.</li> <li>• Call a poison control center or doctor for treatment advice.</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 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>• Have person sip a glass of water if able to swallow.</li> <li>• Do not give anything by mouth to an unconscious person.</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>
<p>For <u>MEDICAL</u> Emergencies Call 24 Hours A Day 1-800-334-7577.</p> <p>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</p>	

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Causes moderate eye irritation. Harmful if swallowed or absorbed through the skin. Avoid contact with eyes, skin or clothing. Do not contaminate food or feedstuffs.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
- Shoes plus socks

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

**ENGINEERING CONTROLS STATEMENT**

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 before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**ENVIRONMENTAL HAZARDS**

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 when disposing of equipment washwaters.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE**

Store at temperatures between 32°F and 110° F. If allowed to freeze, remix before using.

**PESTICIDE DISPOSAL**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL**

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

**DO NOT REUSE EMPTY CONTAINER**

**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.

**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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
- Shoes plus socks

**SPRAY DRIFT MANAGEMENT**

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 all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to application using dry formulations:

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

**INFORMATION ON 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 under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions below).

**CONTROLLING DROPLET SIZE:**

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- 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.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- 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 lowest drift.

**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.

**APPLICATION HEIGHT:**

Applications should not be made at a height greater than 10 feet above the top of the largest 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.

**SWATH ADJUSTMENT:**

When applications are made with 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.).

**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 and how they affect spray drift.

**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 both hot and dry.

**TEMPERATURE INVERSIONS:**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions 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 common during inversions. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also 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 conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**SENSITIVE AREAS:**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas). Do not apply REIGN SC Plant Regulator by air if sensitive species are within 200 feet downwind.

**GENERAL INFORMATION**

REIGN SC is a low dose foliar plant regulator for cotton, utilizing the active ingredients cyclanilide and mepiquat chloride in a 1:4 ratio. REIGN SC modifies plant growth to reduce plant height resulting in a more manageable cotton crop. Additional benefits include: earliness, increased fruit retention, less boll rot, better light interception of lower leaves, improved defoliation and harvest efficiency.

### APPLICATION INSTRUCTIONS

REIGN SC is a low dose plant regulator with use rates ranging from 1.5 to 2.5 ounces per acre under normal conditions. Up to 3.0 ounces per acre may be used under conditions favoring vigorous growth in early to mid season applications. Sequential applications can be made, with a minimum of 7 days between applications. (See Timing and Application Rate Table). REIGN SC can be tank mixed with insecticides, miticides and foliar fertilizer. (See Mixing Instructions).

Prior to application(s) the field should be carefully scouted for stress from factors including: weather, nematode, mite or insect damage, disease stress, herbicide injury or fertility stress. Application(s) should not be made to cotton under stress.

- For ground application use a minimum of 10 gallons of water per acre using nozzles that will develop a Medium spray category as defined by ASAE S-572. Typical nozzles include hollow cone, flat fans, extended range flat fans, and Turbo Teejet.
- For aerial equipment apply in a minimum of 2 gallons of water per acre.

### APPLICATION TIMING AND RATES

Use rates of 1.5 to 2.0 ounces per acre may be applied beginning at the matchhead square growth stage. For sequential applications following a matchhead square treatment or for applications initiated after matchhead square, use 1.5 to 2.5 ounces per acre as needed based on field examination. For conditions favoring vigorous growth following the initial application(s), use rates may be increased up to 3.0 ounces per acre as needed, based on field examination and the degree of vegetative vigor. (See Timing and Application Rate Table).

**REIGN SC Plant Regulator Timing and Application Rate Table**

Timing of Application	Use this Amount of REIGN SC (Ounces/Acre) **	At the Indicated Rate One Gallon of REIGN SC will Treat:
Application beginning at the matchhead square growth stage.	1.5 to 2.0 ounces/A	85 to 64 Acres
Sequential applications or applications beginning after matchhead square growth stage.	1.5 to 2.5 ounces/A	85 to 51 Acres
If conditions favor vigorous growth after the initial application(s), use rates may be increased up to 3 ounces per acre.	1.5 to 3.0 ounces/A	85 to 42 Acres

\*\* Allow a minimum of 7 days between applications. Do not exceed 22 ounces per crop per year.

### LATE SEASON APPLICATIONS

Use 1.5 to 8.0 ounces for a late season application(s). Use low rates on cotton with moderate growth potential and higher rates on cotton with vigorous growth potential.

### USE OF ADJUVANTS

REIGN SC is rain-safe in 8 hours. If rain is expected within 8 hours, use of a high quality EPA-exempt surfactant can reduce the rain-safe period to 4 hours.

### MIXING INSTRUCTIONS

REIGN SC Plant Regulator is a suspension concentrate (SC) formulation and must be applied with calibrated spray equipment. REIGN SC is formulated to mix readily in water. Prior to adding REIGN SC to the spray tank, ensure that the spray tank is thoroughly cleaned and free of other pesticides that may injure cotton. REIGN SC is compatible with most insecticides and miticides. REIGN SC can be tank mixed with foliar fertilizers if prior experience and/or test strips has proven to be compatible and non-injurious. Prior to preparing a tank mix always perform a compatibility test mix with all tank mix components. Mix the finished spray solution as follows:

1. Fill the spray tank half-full with water.
2. Start agitation.
3. Add REIGN SC and continue agitation.
4. If mixing with a dry flowable/wetttable powder tank mix partner, prepare a slurry of the proper amount of the product in a small amount of water. Add the slurry of dry materials to the spray tank.
5. If mixing with a liquid tank mix partner, add the liquid tank mix partner.
6. Complete filling the spray tank with water.

Ensure that all spray system lines including pipes, booms, and screens have the correct concentration of the spray solution by flushing out the system lines before starting the crop application. Maintain agitation until the contents of the tank is sprayed. If the spray mixture is allowed to settle, thorough agitation is required to re-suspend the mixture before spraying is resumed. Screen size in nozzles or line strainers must be 50 mesh or larger.

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### RESTRICTIONS

Do not apply within 30 days of harvest.

Do not apply this product through any kind of irrigation equipment.

Do not plant small grain or leafy vegetable crops within 75 days after last application. Do not plant any crops other than small grain and leafy vegetable crops within 4 months after last application.

Do not graze or feed cotton forage to livestock.

Do not apply more than 22 fl. oz. of this REIGN SC per acre per season.

Do not exceed a maximum of 0.132 lbs. of mepiquat chloride active ingredient per acre per year through combined or repeated uses of any products containing mepiquat chloride. The total annual maximum use rate of REIGN SC at 22 ounces equals 0.127 lbs. of mepiquat chloride active ingredient per acre per year.

Do not exceed a maximum of 0.25 lbs. of cyclanilide active ingredient per acre per year through combined or repeated uses of any products containing cyclanilide, such as REIGN SC and FINISH 6 PRO. The total annual maximum use rate of REIGN SC at 22 ounces equals 0.0316 lbs. of cyclanilide active ingredient per acre per year. The annual maximum use rate of FINISH 6 PRO at 42.6 ounces equals 0.125 lbs. of cyclanilide active ingredient per acre per year. The combined annual maximum use rates of REIGN SC and FINISH 6 PRO equals 0.157 lbs. of cyclanilide active ingredient per acre per year.

Stress: Prior to application(s) the field should be carefully scouted for stress from factors including: weather, nematode, mite or insect damage, disease stress, herbicide injury or fertility stress. Application(s) should not be made to cotton under stress.

### IMPORTANT: READ BEFORE USE

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

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and should be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

### NET CONTENTS: - 1 GALLON

REIGN is a registered trademark of Bayer.



Bayer CropScience

Bayer CropScience LP  
P.O. Box 12014, 2 T.W. Alexander Drive  
Research Triangle Park, North Carolina 27709  
1-866-99BAYER (1-866-992-2937)

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:**

AUG 1 2005

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

264-841