

264-784

9-30-2003

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Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 2-28-95



United States
Environmental Protection Agency
Washington, DC 20460

Registration
 Amendment
 Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 264-784	2. EPA Product Manager George LaRocca	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Renounce 20WP	PM# 13	
5. Name and Address of Applicant (Include ZIP Code) Bayer CropScience 2 T.W. Alexander Drive Research Triangle Park, NC 27709 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. 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
SEP 30 2003

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

Adding pests as allowed by PR Notice 98-10 and EPA Regulations at 40 CFR 152.46. A detailed list is provided in the cover letter with this Notification. We have efficacy data for each pests added.

Section - III

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

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Jamin Huang, Ph.D.	Title Registration Product Manager	Telephone No. (Include Area Code) 919-549-2634
Certification 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 	3. Title Registration Product Manager	
4. Typed Name Jamin Huang, Ph.D.	5. Date September 22, 2003	

Bayer CropScience



September 22, 2003

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, Virginia 22202-4501

Re: Notification of the Addition of Insects Controlled/Suppressed to the Labeling of Renounce 20WP Insecticide (EPA Reg. No.: 264-784; formerly, 3125-587)

Dear Madam/Sir,

Bayer CropScience
2 T.W. Alexander Drive
Research Triangle Park, NC 27709
Phone: 919 549-2000

As allowed by PR Notice 98-10 and EPA regulations at 40 CFR 152.46, we are adding the following pests to the specified crops onto the labeling of **Renounce 20WP Insecticide** (EPA Reg. No.: 264-784). We have efficacy data for each pest added.

Alfalfa:

Add armyworm, corn rootworms (adult), cucumber beetles (adult), grape colaspis (adult), Japanese beetle (adult), June beetle (adult), loopers, Mexican bean beetles, stink bugs, threecornered alfalfa hopper, velvetbean caterpillar, yellowstriped armyworm (1st and 2nd instar) to the Pests Controlled List

Add cowpea aphid to the Pests Suppressed list.

Change "whitefly" to "whitefly (adult)" in the Pests Suppressed list.

Cole crops:

Add armyworm to the Pests Controlled list.

Change "whitefly" to "whitefly (adult)" in the Pests Suppressed list.

Lettuce:

Change "whitefly" to "whitefly (adult)" in the Pests Suppressed list.

Sweet corn:

Change "corn rootworm (adult)" to "corn rootworms (adult)" in the Pest Controlled list.

Pepper:

Change "whitefly" to "whitefly (adult)" in the Pests Suppressed list.

Tomato:

Delete Dipterous leafminer from the Pest Controlled list.

Add leafminers to the Pests Suppressed list.

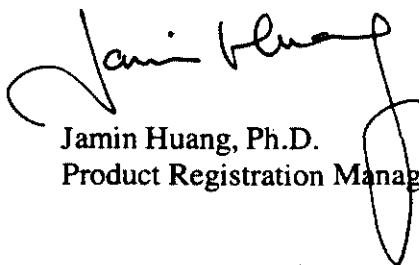
Change "whitefly" to "whitefly (adult)" in the Pests Suppressed list.

I herein certify that the only change in this Notification is the addition of the pests listed above.

Enclosed with this letter are the completed EPA Form 8570-1 dated September 22, 2003, one copy of the new labeling with the changes highlighted, and the three (3) plain copies of the new labeling dated September 22, 2003.

Please contact me at jamin.huang@bayercropscience.com or at 919-549-2634 if you have any questions regarding this notification.

Sincerely,



Jamin Huang, Ph.D.
Product Registration Manager

Attachments

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.

Renounce[®] 20WP Insecticide

For control of certain insects on listed field crops, vegetables, and tree and vine crops.

ACTIVE INGREDIENT:

Cyfluthrin, Cyano(4-fluoro-3-phenoxyphenyl)methyl-3-(2,2-dichloroethenyl)-2,2-dimethyl-cyclopropanecarboxylate. 20%

INERT INGREDIENTS: 80%
 100%

EPA Reg. No. 264-784

EPA Est. No.

STOP - Read the label before use
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.)

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577
For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

FIRST AID

If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<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 mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.

In case of emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

Note To Physician: ANTIDOTE - No specific antidote is available. Treat symptomatically. Published data indicate Vitamin E acetate can prevent and/or mitigate symptoms of paresthesia (skin irritation) caused by synthetic pyrethroids. Vomiting may cause aspiration pneumonia. In case of poisoning, it is requested that you also notify Bayer CropScience.

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye irritation. Avoid breathing dust. Avoid contact with skin, eyes or clothing.

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 A on an EPA chemical-resistance category selection chart.

APPLICATORS AND OTHER HANDLERS MUST WEAR:

- Long-sleeved shirt and long pants
- Chemical resistant gloves (such as nitrile, butyl, neoprene, and/or barrier laminate)
- 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 STATEMENTS:

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to inter-tidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash-waters.

This product is highly toxic to bees exposed to direct contact or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops if bees are visiting the treatment area. Additional information may be obtained by consulting your Cooperative Extension Service.

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

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

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

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AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

- Coveralls
- Chemical resistant gloves (such as nitrile, butyl, neoprene, and/or barrier laminate)
- Shoes plus socks

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry place and away from open flame and extreme heat. Store in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open case and poly-bag container in a manner as to prevent spillage. Do not attempt to open PVA packets. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of as directed for pesticides above. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer CropScience Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer CropScience Emergency Response Telephone No. is 1-800-334-7577.

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 dispose of in a sanitary landfill or, incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Renounce® 20WP may be used for control of a broad spectrum of insect pests by contact and ingestion. Because of this contact activity, good spray coverage of the crop is needed for the highest level of control.

PACKAGE HANDLING

Renounce® 20WP is packaged in 4.0 ounce Poly-Vinyl Acetate (PVA) packets. PVA packets are designed to dissolve in water and allow the contents to mix. These PVA packets represent a closed-handling system and must not be opened prior to adding to water in spray tank. Do not allow packets to become wet prior to adding to the spray tank. Do not handle with wet hands. Reseal outer bag to protect remaining packets from moisture.

MIXING

The enclosed packets containing Renounce® 20WP are water-soluble. To prepare the spray mixture, drop the required number of unopened packets into the spray tank while filling with water to the desired level. Operate the agitator while mixing. Depending on the water temperature and the degree of agitation, the packets should be completely dissolved within approximately 5 minutes from the time they were added to the water.

COMPATIBILITY / ORDER-OF-MIXING

Renounce® 20WP is physically and biologically compatible with many registered pesticides and fertilizers and micronutrients. Do not use PVA packets in a tank-mix with products that contain boron or release free chlorine. The resultant reaction of PVA and boron or free chlorine is a plastic that is not soluble in water or solvents. When considering mixing Renounce® 20WP with other pesticides, or with liquid fertilizer, first contact your supplier. For further information, contact your local Bayer CropScience representative. If your supplier and Bayer CropScience representative have no experience with the combination you are considering, you should conduct a test to determine physical compatibility. To determine physical compatibility, pour the recommended proportions of each chemical with the same proportion of water as will be present in the chemical supply tank into a suitable container, mix thoroughly and allow to stand for five minutes. If the combination remains mixed, or can be re-mixed readily, the mixture is considered physically compatible.

The proper mixing procedure for Renounce® 20WP alone or in tank-mix combinations with other pesticides is:

- 1) -Fill the spray tank 1/4 to 1/3 full with clean water;
- 2) -While recirculating and with the agitator running, add the required number of unopened Renounce® 20WP packets;
- 3) -Allow enough time for thorough mixing. Depending on water temperature the packets should completely dissolve in 5 to 10 minutes;

- 4) -Continue to fill spray tank with water until 1/2 full;
- 5) -If applicable, add remaining tank mix components in the following order: wettable powders (WP) or wettable granules (WG), flowables (FL or SC), and emulsifiable concentrates (EC). Ensure good agitation as each component is added. Do not add a tank mix component until the previous component is thoroughly mixed;
- 6) -Fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.

INSECT RESISTANCE STATEMENT

Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or State agricultural authorities for details. If resistance to this product develops in your area, this product alone may not continue to provide adequate control of resistant pests. If poor performance cannot be attributed to improper application or rate, extreme weather conditions, etc., a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local Bayer CropScience representative, agricultural advisor or Cooperative Extension Service agent for the best alternative method of control in your area and insect resistance management strategies in your area.

APPLICATION GUIDELINES

Not for Use in Greenhouses

Foliar Application

Foliar applications may be made using properly calibrated ground sprayers, fixed- or rotary-winged aircraft or through properly designed, sprinkler-type, chemigation equipment. See Chemigation Application directions below. Thorough and uniform coverage of plants, with direct contact of the spray mixture to the target pests, is required for satisfactory control.

Avoid application procedures where thorough coverage of plant is not possible. Applications made with less than thorough coverage may result in slower activity and/or less overall control from a single application than an application made with higher water volumes. See general, Spray Drift Reduction Management, section below for application guidelines on all application methods.

Ground applications should be made in a minimum of **10 gallons/A**.

Aerial applications should be made in a minimum of **2 gallons/A**, however 5 gallons/A are recommended. See crop specific gallowage requirements. Do not apply as Ultra-Low Volume (ULV). Aerial applications made to dense canopies may not provide sufficient coverage of lower leaves to provide pest control. Higher labeled rates of Renounce® 20WP may be necessary for aerial applications.

Chemigation Application

Applications should be made as concentrated as possible. For best results, apply at 100% input/travel speed for center pivots, or 0.10 inch (2,716 gallons) up to 0.15 inch (4,073 gallons) of water/A for other systems. Higher labeled rates of Renounce® 20WP may be necessary for chemigation applications.

Types of Irrigation Systems: Renounce® 20WP may be applied through sprinkler type irrigation systems. These types include; center pivot, lateral move, or solid set irrigation systems. Do not apply Renounce® 20WP through any other type of irrigation system.

Injection for Chemigation: Inject the specified dosage of Renounce® 20WP into the irrigation main, water stream: (1) after the filtration system; (2) through a constant flow, metering device; (3) into the center of the main line flow via a pitot tube or equivalent; (4) at a point ahead of at least one, right-angle turn in main stream flow such that thorough mixing with the irrigation water is ensured.

Uniform Water Distribution and System Calibration: The irrigation system must provide uniform distribution of Renounce® 20WP treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in or on the crop can result from non-uniform distribution. The system must be calibrated to uniformly distribute the rates specified for chemigation application to specific crops. If you have questions about calibration, contact your local Bayer CropScience representative, Cooperative Extension Service agent, equipment manufacturers, or other experts.

Chemigation Monitoring: A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Required Injection and Sprinkler System Safety Devices: The system must contain a functional check valve, vacuum relief valve, and low-pressure drain, appropriately located on the irrigation pipeline to prevent water source contamination from back-flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor/engine stops, or in cases where there is no water pump, when water pressure decreases to the point where pesticide distribution is adversely affected. Injection systems must use a metering pump or equivalent, such as a positive displacement injection pump (e.g., diaphragm pump, venturi injection) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Public Water Systems: DO NOT APPLY Renounce® 20WP THROUGH ANY IRRIGATION SYSTEM, PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Renounce® 20WP may be applied through any of the recommended types of irrigation systems which may be

supplied by a public water system **ONLY IF** the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank. Any irrigation system using water supplied from a public water system must also meet the same safety requirements as for any other type of water supply and include the same safety devices.

Chemical Supply Tank Dilution and Agitation: For injection of Renounce® 20WP use a chemical supply tank for pre-mixing Renounce® 20WP with water before injecting mixture into the irrigation line. Dilution ratio should be at least 0.5 gal. water to 1 lbs Renounce® 20WP. It is necessary to provide constant mechanical or hydraulic agitation to maintain Renounce® 20WP in suspension in the chemical supply tank during the entire period of application. Determine the required amounts of Renounce® 20WP and water to mix in the tank. The amount of Renounce® 20WP needed equals the number of ounces of Renounce® 20WP to be applied per acre multiplied by the number of acres to be chemigated. The amount of suspension/mixture needed equals the gallons of suspension delivered per hour by the injection pump, multiplied by the number of hours chemigation will take place.

Cleaning the Chemical Injection System: In order to apply pesticides accurately, the chemical injection system must be kept clean; free from chemical or fertilizer residues and sediments. Refer to your owner's manual or ask your equipment supplier for the cleaning procedure for your injection system.

Flushing the Irrigation System: At the end of the application period, allow time to flush the pesticide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

Center-Pivot and Automatic-Move Linear Systems: Inject the specified dosage per acre continuously for one complete revolution (center pivot) or move of the system. The system should be run at maximum speed. It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, pumps and system safety devices are plugged to prevent chemical contamination of these areas. The use of END GUNS is NOT recommended. End guns that provide uneven distribution of treated water can result in less effectiveness or illegal pesticide residues in or on the crop.

Solid Set and Manually Controlled Linear Systems: Injection should be during the last 30 to 60 minutes of a regular irrigation period or as a separate 30 to 60 minute application not associated with a regular irrigation.

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

SPRAY DRIFT REDUCTION MANAGEMENT

Do not apply when wind speed favors drift beyond the area intended for treatment. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

Buffer Zone Requirements:

Ground, Follar Applications: Do not apply by ground within 25 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

Aerial Applications: Do not apply by air within 150 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds. The spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wingspan or rotor diameter. Do not apply as Ultra-Low Volume (ULV).

Importance of Droplet Size: An important factor influencing drift is droplet size. Small droplets (<150 to 200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. Spray should be released at the lowest possible height consistent with good pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Wind Speed Restrictions: Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Avoiding applications when wind direction is toward the aquatic area can reduce risk of exposure to sensitive aquatic areas.

Restrictions During Temperature Inversions: Do not make aerial or ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog. However, if fog is not present, the movement of smoke from a ground source can also identify inversions. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

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RUNOFF MANAGEMENT

Do not cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip. When used on erodible soils, best management practices for minimizing runoff should be employed. Consult your local Soil Conservation Service for recommendations in your use area. Do not apply if soil is saturated with water or under conditions that favor runoff. Do not apply in the rain.

CROP ROTATION STATEMENT

Treated areas may be replanted with any crop as soon as practical after last application.

FIELD CROPS

RECOMMENDED APPLICATIONS – RENOUNCE® 20WP

For all crops, apply specific dosage of Renounce® 20WP at early threshold for target pest, as population begins to develop. Degree of control or suppression of additional labeled pests will be determined, in part by the stage of pest development at application and infestation level of those pests.

Application timing should be based on local economic thresholds. Use the higher rates for moderate to heavy insect pressure. Lower rates are generally adequate for low to moderate insect pressure but require careful scouting and may require more frequent application.

Renounce® 20WP is a wettable powder formulation and is active by contact and ingestion. Thorough coverage is necessary for optimum performance.

See application recommendations at the beginning of each section: **FIELD CROPS; VEGETABLE CROPS; TREE and VINE CROPS.**

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ALFALFA		
PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Alfalfa looper Cutworms Green cloverworm Meadow spittlebug Potato leafhopper	1.0 – 2.0	0.013 – 0.025
Alfalfa caterpillar Alfalfa plant bug Alfalfa webworm Alfalfa weevil Armyworm Aster leafhopper Beet armyworm (1 st and 2 nd instar) Corn earworm Corn rootworms (adult) Cucumber beetles (adult) Egyptian alfalfa weevil Fall armyworm (1 st and 2 nd instar) Grape colaspis (adult) Japanese beetle (adult) June beetle (adult) Loopers Lygus bug Mexican bean beetle Stink bugs Tarnished plant bug Threecornered alfalfa hopper Velvetbean caterpillar Yellowstriped armyworm (1 st and 2 nd instar)	2.0 – 3.5	0.025 – 0.044
Blotch leafminer Grasshoppers Western yellowstriped armyworm (1 st and 2 nd instar)	2.5 – 3.5	0.031 – 0.044
PESTS SUPPRESSED		
Cowpea aphid Blue pea aphid Pea aphid Whitefly (adult)	3.5	0.044
<p>Notes: Pre-Harvest Interval (PHI) or Pre-Grazing Interval: 7 days. Maximum Renounce® 20WP allowed per cutting: 3.5 ounces/A (0.044 lbs AI/Acre). Maximum Renounce® 20WP allowed per crop season: 14.0 ounces/A (0.175 lbs AI/Acre). Maximum number of applications per season: 4. Minimum application volume (water): 10.0 GPA – ground, 2.0 GPA – aerial application. Due to potential injury to bees, do not apply to alfalfa grown for seed. Do not apply to mixed stands with intentionally-grown forage grasses. See CHEMIGATION statement in <i>Application Guidelines</i> section of this label.</p>		

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VEGETABLE CROPS

RECOMMENDED APPLICATIONS – RENOUNCE® 20WP

For all crops, apply specific dosage of Renounce® 20WP at early threshold for target pest as population begins to develop. Degree of control or suppression of additional labeled pests will be determined, in part, by the stage of pest development at application and infestation level of those pests.

Application timing should be based on local economic thresholds. Use the higher rates for moderate to heavy insect pressure. Lower rates are adequate for low to moderate insect pressure but require careful scouting and may require more frequent application.

Renounce® 20WP is a wettable powder formulation and is active by contact and ingestion. Thorough coverage is necessary for optimum performance.

See application recommendations at the beginning of each section: **FIELD CROPS; VEGETABLE CROPS; TREE and VINE CROPS.**

CARROT

PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Aster leafhopper	2.0	0.025
Carrot weevil	2.0 – 3.5	0.025 – 0.044
Cutworms	3.5	0.044

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

Maximum Renounce® 20WP allowed per 7-day interval: **3.5 ounces/A (0.044 lbs AI/Acre).**

Maximum Renounce® 20WP allowed per crop season: **17.5 ounces/A (0.220 lbs AI/Acre).**

Maximum number of applications: **5.**

Minimum application volume (water): 10.0 GPA – ground, 2.0 GPA – aerial application.

Due to potential injury to bees, do not apply to carrot grown for seed.

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

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COLE CROPS **		
Broccoli, Chinese (gai lon) broccoli, Brussels sprouts, Cabbage, Chinese (napa) cabbage, Chinese mustard (gai choy) cabbage, Cauliflower, Cavalo broccoli, Kohlrabi, Mustard greens		
PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Cutworms Potato leafhopper. Thrips	1.0 – 2.0	0.013 – 0.025
Alfalfa looper Cabbage looper Cabbage web worm Imported cabbageworm Southern cabbageworm	2.0 – 3.0	0.025 – 0.038
Amyworm Beet armyworm (1 st and 2 nd instar) Cabbage flea beetle Corn earworm Diamondback moth (larvae)* Fall armyworm (1 st and 2 nd instar) Grasshoppers Japanese beetle (adult) Lygus bug Meadow spittlebug Southern armyworm (1 st and 2 nd instar) Stink bugs Tarnished plant bug* Vegetable weevil (adult) Yellowstriped armyworm	3.0 – 3.5	0.038 – 0.044
PESTS SUPPRESSED		
Whitefly (adult)*	3.5	0.044
<p>Notes: Pre-Harvest Interval (PHI): 0 day.</p> <p>Maximum Renounce® 20WP allowed per 7-day interval: 3.5 ounces/A (0.044 lbs AI/Acre).</p> <p>Maximum Renounce® 20WP allowed per crop season: 14.0 ounces/A (0.175 lbs AI/Acre).</p> <p>Maximum number of applications: 4.</p> <p>Minimum application volume (water): 10 GPA – ground, 5 GPA – aerial application.</p> <p>Due to potential injury to bees, do not apply to cole crops grown for seed.</p> <p>See CHEMIGATION statement in <i>Application Guidelines</i> section of this label.</p> <p>*See INSECT RESISTANCE statement elsewhere on this label.</p> <p>**Use not permitted in CA unless accompanied by supplemental label.</p>		

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LETTUCE **		
Head lettuce, Leaf lettuce		
PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Cutworms Potato leafhopper Thrips	1.0 – 2.0	0.013 – 0.025
Alfalfa looper Cabbage looper Green cloverworm Imported cabbageworm Saltmarsh caterpillar	2.0 – 3.0	0.025 – 0.038
Beet armyworm (1 st and 2 nd instar) Corn earworm Diamondback moth (larvae)* European corn borer Fall armyworm (1 st and 2 nd instar) Flea beetles Grasshoppers Japanese beetle (adult) Leafhoppers Lygus bug Meadow spittlebug Southern armyworm (1 st and 2 nd instar) Stink bugs Tarnished plant bug* Vegetable weevil (adult) Yellowstriped armyworm	3.0 – 3.5	0.038 – 0.044
PESTS SUPPRESSED		
Whitefly (adult)	3.5	0.044
<p>Notes: Pre-Harvest Interval (PHI): 0 day. Maximum Renounce® 20WP allowed per 7-day interval: 3.5 ounces/A (0.044 lbs AI/Acre). Maximum Renounce® 20WP allowed per crop season: 14.0 ounces/A (0.175 lbs AI/Acre). Maximum number of applications: 4. Minimum application volume (water): 10 GPA – ground, 5 GPA – aerial application. Due to potential injury to bees, do not apply to lettuce grown for seed. See CHEMIGATION statement in <i>Application Guidelines</i> section of this label. *See INSECT RESISTANCE statement elsewhere on this label. **Use not permitted in CA unless accompanied by supplemental label.</p>		

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PEA, DRY**		
Pigeon pea, Chick pea, Garbonzo bean, Lentil		
PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Cutworms Potato leafhopper	1.0 – 2.0	0.013 – 0.025
Stink bugs	2.0 – 3.0	0.025 – 0.038
Lygus bug Soybean looper* Tarnished plant bug Yellowstriped armyworm	3.0 – 4.0	0.038 – 0.050
PESTS SUPPRESSED		
Pea aphid	4.0	0.050
<p>Notes: Pre-Harvest Interval (PHI): 7 days (minimum time between final application and threshing for seed). Maximum Renounce® 20WP allowed per 14-day interval: 4.0 ounces/A (0.050 lbs AI/Acre). Maximum Renounce® 20WP allowed per crop season: 8.0 ounces/A (0.100 lbs AI/Acre). Maximum number of applications: 2. Minimum application volume (water): 10.0 GPA – ground, 2.0 GPA – aerial application. Do not feed treated vines or hay to livestock. See CHEMIGATION statement in <i>Application Guidelines</i> section of this label. *See INSECT RESISTANCE statement elsewhere on this label. **Use not permitted in CA unless accompanied by supplemental label.</p>		

PEA, SOUTHERN **		
PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Cutworms Potato leafhopper Thrips	1.0 – 2.0	0.013 – 0.025
Beet armyworm (1 st and 2 nd instars) Corn earworm Cowpea curculio Fall armyworm (1 st and 2 nd instars) Grasshoppers Lygus bug Tarnished plant bug Southern armyworm Stink bugs Yellowstriped armyworm	2.0 – 2.6	0.025 – 0.033
<p>Notes: Pre-Harvest Interval (PHI): 3 days. Maximum Renounce® 20WP allowed per 5-day interval: 2.6 ounces/A (0.033 lbs AI/Acre). Maximum Renounce® 20WP allowed per crop season: 13.0 ounces/A (0.163 lbs AI/Acre). Maximum number of applications: 5. Minimum application volume (water): 10.0 GPA – ground, 2.0 GPA – aerial application. Due to potential injury to bees, do not apply to Southern peas grown for seed. Do not feed treated vines or hay to livestock. Do not apply to cowpeas or Southern pea varieties grown for livestock feed. See CHEMIGATION statement in <i>Application Guidelines</i> section of this label. *See INSECT RESISTANCE statement elsewhere on this label. **Use not permitted in CA unless accompanied by supplemental label.</p>		

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PEPPER		
PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Celery leaf-tier Corn earworm European corn borer Garden webworm Potato leafhopper Stink bugs	2.0 – 3.5	0.025 – 0.044
Beet armyworm (1 st and 2 nd instar) Cabbage looper Thrips (except <i>Thrips palmi</i>) Western yellowstriped armyworm (1 st and 2 nd instar)	2.6 – 3.5	0.033 – 0.044
Flea beetles	3.5	0.044
PESTS SUPPRESSED		
Leafminers Pepper weevil* Whitefly (adult)	3.5	0.044
<p>Notes: Pre-Harvest Interval (PHI): 7 days. Maximum Renounce® 20WP allowed per 7-day interval: 3.5 ounces/A (0.044 lbs AI/Acre). Maximum Renounce® 20WP allowed per crop season: 21.0 ounces/A (0.263 lbs AI/Acre). Maximum number of applications: 6. Minimum application volume (water): 10.0 GPA – ground, 2.0 GPA – aerial application. See CHEMIGATION statement in <i>Application Guidelines</i> section of this label. *See INSECT RESISTANCE statement elsewhere on this label.</p>		

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POTATO		
PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Cutworms Potato leafhopper	1.0 – 2.0	0.013 – 0.025
Cabbage looper Colorado potato beetle* European corn borer Flea beetles Potato tuberworm Potato psyllid Sweetpotato weevil (adults) Tarnished plant bug*	2.0 – 3.5	0.025 – 0.044
PESTS SUPPRESSED		
Aphids	3.5	0.044
<p>Notes: Pre-Harvest Interval (PHI): 0 day. If more than 7 ounces/Acre is applied, allow at least 14 days between the last application and grazing. Maximum Renounce® 20WP allowed per 5-day interval: 3.5 ounces/A (0.044 lbs AI/Acre). Maximum Renounce® 20WP allowed per crop season: 21.0 ounces/A (0.263 lbs AI/Acre). Maximum number of applications: 6. Minimum application volume (water): 10.0 GPA – ground; 2.0 GPA – aerial application. See CHEMIGATION statement in <i>Application Guidelines</i> section of this label. *See INSECT RESISTANCE statement elsewhere on this label.</p>		

RADISH		
PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Cutworm Flea beetles	2.0 – 3.5	0.025 – 0.044
<p>Notes: Pre-Harvest Interval (PHI): 0 day. Maximum Renounce® 20WP allowed per 7-day interval: 3.5 ounces/A (0.044 lbs AI/Acre). Maximum Renounce® 20WP allowed per crop season: 14.0 ounces/A (0.175 lbs AI/Acre). Maximum number of applications: 4. Minimum application volume (water): 10.0 GPA – ground, 2.0 GPA – aerial application. Do not harvest radish tops (leaves) for human consumption. Due to potential injury to bees, do not apply to radish grown for seed. See CHEMIGATION statement in <i>Application Guidelines</i> section of this label.</p>		

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SWEET CORN		
PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Black cutworm Granulate cutworm Sandhill cutworm	1.0 – 2.0	0.013 – 0.025
Armyworm Chinch bug Corn earworm Corn rootworms (adult) Corn silk fly European corn borer Flea beetles Southern corn leaf beetle Southwestern corn borer Stalk borer Western bean cutworm	2.0 – 3.5	0.025 – 0.044
Grasshoppers	2.5 – 3.5	0.031 – 0.044
Fall armyworm (1 st and 2 nd instar)	3.5	0.044
<p>Notes: Pre-Harvest Interval (PHI): 0 day. Maximum Renounce® 20WP allowed per 7-day interval: 3.5 ounces/A (0.044 lbs AI/Acre). Maximum Renounce® 20WP allowed per crop season: 35.0 ounces/A (0.440 lbs AI/Acre). Maximum number of applications: 10. Minimum application volume (water): 10.0 GPA – ground; 2.0 – aerial application. See CHEMIGATION statement in <i>Application Guidelines</i> section of this label.</p>		

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TOMATO		
PESTS CONTROLLED	Rate ounces/Acre	Rate lbs AI/Acre
Colorado potato beetle*	2.0 – 3.5	0.025 – 0.044
European corn borer		
Potato aphid		
Stink bugs		
Tomato fruitworm (corn earworm)		
Tomato hornworm		
Beet armyworm (1 st and 2 nd instar)	2.6 – 3.5	0.033 – 0.044
Cabbage looper		
Southern armyworm (1 st and 2 nd instar)		
Tarnished plant bug*		
Tomato pinworm		
Variegated cutworm		
Western flower thrips		
Western yellowstriped armyworm (1 st and 2 nd instar)		
Flea beetles	3.5	0.044
PESTS SUPPRESSED		
Leafminers	3.5	0.044
Whitefly (adult)		
<p>Notes: Pre-Harvest Interval (PHI): 0 day. Maximum Renounce® 20WP allowed per 7-day interval: 3.5 ounces/A (0.044 lbs AI/Acre). Maximum Renounce® 20WP allowed per crop season: 21.0 ounces/A (0.263 lbs AI/Acre). Maximum number of applications: 6. Minimum application volume (water): 10.0 GPA – ground, 2.0 GPA – aerial application. See CHEMIGATION statement in <i>Application Guidelines</i> section of this label. *See INSECT RESISTANCE statement elsewhere on this label.</p>		

TREE and VINE CROPS

RECOMMENDED APPLICATIONS – RENOUNCE® 20WP

For tree and vine crops, application rates should be based on the Tree or Vine, Row-Volume/Density concept for either dilute or concentrate applications. For determining product required in concentrate applications, first determine amount of spray volume per acre necessary to spray-to-drip in a dilute application in a grove, yard, vineyard, or orchard. Based on this volume, calculate required formulation quantities per acre. Apply equivalent amount per acre for concentrate sprays. For orchard/vineyard airblast applications, do not spray above trees/vines and turn off outward pointing nozzles at row ends and outer rows.

Renounce® 20WP is a wettable powder formulation and is active by contact and ingestion. Thorough coverage of foliage and fruit is necessary for optimum performance.

For all crops, apply specific dosage of Renounce® 20WP at early threshold for target pest, as population begins to develop. Degree of control or suppression of additional labeled pests will be determined, in part by the stage of pest development at application and infestation level of those pests.

Application timing should be based on local economic thresholds. Use the higher rates for moderate to heavy insect pressure. Lower rates are generally adequate for low to moderate insect pressure but require careful scouting and may require more frequent application.

See application recommendations at the beginning of each section: **FIELD CROPS; VEGETABLE CROPS; TREE and VINE CROPS.**

CITRUS (California and Arizona, Only)

Orange (sweet and sour), Grapefruit, Lemon, Lime, Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Kumquat, Mandarin (tangerine), Pummelo, Satsuma mandarin

PESTS CONTROLLED	Concentrate Rate ounces/Acre (In 100 - 250 GPA)	Dilute Rate ounces/100 Gallons (In 250 GPA)
Glassywinged sharpshooter	2.0 – 4.0	0.8 – 1.6
Foliar feeding cutworms Fuller rose beetle (larvae and adults on foliage) Grasshoppers Root-weevil complex (larvae and adult on foliage)	3.0 – 4.0	1.2 – 1.6
Citrus thrips	8.0	3.2

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

Maximum Renounce® 20WP allowed per 7-day interval: **8.0 ounces/A (0.10 lbs AI/Acre).**

Maximum Renounce® 20WP allowed per crop season: **8.0 ounces/A (0.10 lbs AI/Acre).**

Maximum number of applications: 4 (at low rate).

Minimum application volume (water): 25 GPA – ground, 25 GPA – aerial application.

Maximum concentrate rate is based on canopy size requiring 250 gallons per acre, if sprayed to drip.

For concentrate spray application based on Row-Volume/Density, do not apply less than 2.0 ounces/A.

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HOP		
PESTS CONTROLLED	Concentrate Rate ounces/Acre (In 100 - 250 GPA)	Dilute Rate ounces/100 Gallons (In 250 GPA)
Hop aphid	4.0	1.6
Hop flea beetle		
Hop looper		
Hop plant bug		
Notes: Pre-Harvest Interval (PHI): 7 days. Maximum Renounce® 20WP allowed per 14-day interval: 4.0 ounces/A (0.050 lbs A/Acre). Maximum Renounce® 20WP allowed per crop season: 20.0 ounces/A (0.250 lbs A/Acre). Maximum number of applications: 5. Minimum application volume (water): 25 GPA – ground, 25 GPA – aerial application. Maximum concentrate rate is based on canopy size requiring 250 gallons per acre, if sprayed to drip. For concentrate spray application based on Row-Volume/Density, do not apply less than 4.0 ounces/A.		

IMPORTANT: READ BEFORE USE

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

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NET CONTENTS: 10 x 4.0 ounce PVA Packets / Re-closable Bag - 8 Re-closable Bags / 20 lb Case



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Renounce 20WP (MASTER) Approved 3/6/03, Notification 9/22/03.