



**U.S. ENVIRONMENTAL PROTECTION AGENCY**

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

EPA Reg. Number:  
**71512-3**

Date of Issuance:  
**NOV 12 2004**

Terms of Issuance:  
**Conditional**

Name of Pesticide Product:  
**Ranman 400SC**

NOTICE OF PESTICIDE:  
XX Registration  
\_\_\_\_ Reregistration  
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

**ISK Biosciences Corporation  
7470 Auburn Road, Suite A  
Concord, Ohio 44077**

**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, this product is conditionally registered under the Federal Insecticide, Fungicide and Rodenticide Act as amended. 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 comply with the conditions of registration specified on page 2. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions

A copy of your label stamped "Accepted with comments" is included for your records.

Signature of Approving Official:

Date:

**NOV 12 2004**

Dennis McNeilly, Acting Product Manager (22)  
Registration Division, Fungicide Branch

**Conditions of Registration:****Ranman 400SC****EPA Reg. No. 71512-3**

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 reregistration of your product under FIFRA Section 4.
2. Make the following changes to the label:
  - A. Change the EPA Registration Number to "EPA Reg. No. 71512-3"
  - B. Change "waterproof gloves" to "chemical resistant gloves made of any waterproof material" under PPE and in the Agricultural Use Requirements box.
  - C. The label states that for resistance management a fungicide with a different mode of action should be alternated. The label does not indicate the mode of action of this chemical (see PR Notice 2000-5). You should include the mode/target site of action grouping and identification symbol to assure that appropriate products are alternated.
  - D. Under Agricultural Use Requirements, change the REI to 12 hours.
  - E. Add a statement which specifies a rotational plant back interval of 30 days for all crops for which cyazofamid is not registered.
  - F. Under the section header "DIRECTIONS FOR USE", add: "Do not use on tomatoes or cucurbit vegetables grown in a greenhouse."
3. Submit one copy of the revised final printed label before releasing the product for shipment.



**RANMAN™ 400SC**  
**AGRICULTURAL FUNGICIDE**

**ACTIVE INGREDIENT:**

Cyazofamid* .....	34.5%
<b>INERT INGREDIENTS</b> .....	65.5%
<b>Total</b> .....	100.0%

\*4-chloro-2-cyano-*N,N*-dimethyl-5-(4-methylphenyl)-1*H*-imidazole-1-sulfonamide (CA)

Contains 3.33 pounds Cyazofamid Per Gallon (400 grams per liter)

EPA Reg. No. 71512-3

EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**See side panel for additional precautionary statements.**

**Read entire label carefully and use only as directed.**

**Net Contents: 5 Gallons**

**ISK Biosciences Corporation**  
7470 Auburn Road, Suite A  
Concord, Ohio 44077

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

NOV 12 2004

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
the following pesticide has been  
registered for sale and distribution  
in the United States of America.

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<b>FIRST AID</b>	
<b>If on skin</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of soap and 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.</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>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</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 by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call <b>1-888-484-7546</b>	

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## **PRECAUTIONARY STATEMENTS**

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### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

#### **CAUTION**

Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. **DO NOT** take internally.

#### **Personal Protective Equipment (PPE)**

Applicators and other handlers must wear long-sleeved shirt and long pants, socks, shoes, and waterproof gloves.

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. Do not allow contact of contaminated clothing with unprotected skin. 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**

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

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CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

**User Safety Recommendations**  
Users should:  
\* Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.  
\* Remove and wash contaminated clothing before reuse.

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**ENVIRONMENTAL HAZARDS**

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DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate waters when disposing of equipment wash waters or rinsate.

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 is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they should be observed.

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**DIRECTIONS FOR USE**

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

FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL.

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. 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 four (4) hours.

PPE required for early entry to the 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, waterproof gloves, shoes plus socks and protective eyewear.

## MIXING AND SPRAYING

RANMAN 400SC can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control.

**NOTE:** Slowly invert container several times to assure uniform mixture.

Dosage rates on this label indicate fluid ounces of RANMAN 400SC per acre, unless otherwise stated. Under conditions favorable for disease development, the highest rate specified and shortest application interval should be used. For all applications utilizing water volumes up to 60 gallons per acre, an organosilicone surfactant should be added according to the manufacturer's label recommendations in order to improve spray coverage.

RANMAN 400SC may be applied with all types of spray equipment normally used for ground and aerial applications.

The required amount of RANMAN 400SC should be added slowly into the spray tank during filling. With concentrate sprays, pre-mix the required amount of RANMAN 400SC in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations. DO NOT allow spray mixture to stand overnight or for prolonged periods. Prepare only the amount of spray required for immediate use. Spraying equipment should be thoroughly cleaned immediately after the application,

Apply RANMAN 400SC in sufficient water to obtain adequate coverage of the foliage. Gallonage to be used will vary with crop and amount of plant growth. Spray volume will usually range from 20 to 100 gallons per acre (200 to 1000 liters per hectare) for dilute sprays, and 5 to 10 gallons per acre (50 to 100 liters per hectare) for concentrate ground and aerial sprays. For aerial applications, apply RANMAN 400SC in a minimum of 5 gallons of water per acre. Application through sprinkler irrigation systems is not recommended unless specific directions are given for a crop. See application and calibration instruction below.

## INTEGRATED PEST MANAGEMENT

RANMAN 400SC is an excellent disease control agent when used according to label directions for control of several Oomycete fungi. Although RANMAN 400SC has limited systemic activity, it should be utilized as a protectant fungicide and applied before the disease infects the crop. Depending upon the level of disease pressure, good protection of the crop against disease can be expected over a period of 7 to 10 days. RANMAN 400SC is recommended for use as part of an Integrated Pest Management (IPM) program, which may include the use of disease-resistant crop varieties, cultural practices, crop rotation, biological disease control agents, pest scouting and disease forecasting systems aimed at preventing economic pest damage. Practices known to reduce disease development

should be followed. Consult your state cooperative extension service or local agricultural authorities for additional IPM strategies established in your area. RANMAN 400SC may be used in State Agricultural Extension advisory (disease forecasting) programs that recommend application timing based upon environmental factors that favor disease development.

## **RESISTANCE MANAGEMENT**

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. A disease management program that includes alternation or tank mixes between RANMAN 400SC and other labeled fungicides that have a different mode of action and/or control pathogens not controlled by RANMAN 400SC is essential to prevent disease resistant pathogens populations from developing. RANMAN 400SC should not be utilized continuously nor tank mixed with fungicides that have shown to have developed fungal resistance to the target disease.

Since pathogens differ in their potential to develop resistance to fungicides, follow the directions outlined in the "Directions For Use" section of this label for specific resistance management strategies for each crop. Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of RANMAN 400SC in programs that seek to minimize the occurrence of disease resistance. RANMAN 400SC is not cross-resistant with other classes of fungicides that have different modes of action.

## **APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION**

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set or portable (wheel move, side roll, end tow, or hand move) irrigation system(s). DO NOT apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

DO NOT apply RANMAN 400SC through irrigation systems 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 per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, should the need arise.

The irrigation water pipeline must be fitted with a functional, automatic, quick-closing check valve to prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low-pressure drain, located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source.

**Always inject RANMAN 400SC into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.**

Pesticide injection equipment must be fitted with a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system, so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. DO NOT apply when wind speed favors drift beyond the area intended for treatment.

RANMAN 400SC may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place, then refer to the appropriate directions provided for each type.

#### **A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment**

For injection of pesticides, these continuously moving systems must use a positive displacement injection pump of either diaphragm or piston type, constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock and capable of injection at pressures approximately 2-3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Thoroughly mix recommended amount of this product for acreage to be covered into the same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until this product has been cleared from the last sprinkler head.

#### **B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment**

With stationary systems, an effectively designed in-line venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides; however, a positive-displacement pump can also be used.

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a 30 to 45 minute period. Mix desired amount of RANMAN 400SC for acreage to be covered with water so that the total mixture of this product plus water in the injection tank is equal to the quantity of water used during calibration.



Agitation is recommended. RANMAN 400SC can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until this product has been cleared from last sprinkler head.

<b>DIRECTIONS FOR USE</b>			
<b>Crop</b>	<b>Diseases</b>	<b>Use Rate Fl. Oz. Product Per Acre (lb. ai/A)</b>	<b>Instructions</b>
<b>CUCURBITS</b> Cantaloupe Chayote Chinese-waxgourd Cucumbers Gourds Honeydew melons Momordica spp. Muskmelon Watermelon Pumpkin Squash Zucchini	Downy mildew <i>(Pseudoperonospora cubensis)</i>  Phytophthora blight <i>(Phytophthora capsici)</i>	2.1 to 2.75 (0.054 to 0.071)	<p><b>Resistance Management:</b> DO NOT apply more than six sprays of RANMAN 400SC per crop. Alternate sprays of RANMAN 400SC with a fungicide with a different mode of action. DO NOT make more than three consecutive applications of RANMAN 400SC followed by at least three applications of fungicides having different modes of action before applying additional RANMAN 400SC.</p> <p><b>Application instructions:</b> For Downy mildew control, make fungicide applications on a 7- to 10-day schedule beginning with initial flowering or when disease conditions are favorable for disease development, but prior to disease development. Use the low rate and long interval as disease preventative sprays or when disease conditions are low. Increase to highest rate and shortest interval under moderate to heavy disease pressure. For Phytophthora blight, apply RANMAN 400SC at the 2.75 fl. oz. rate on weekly intervals beginning when disease conditions are favorable for disease development, prior to the onset of visible symptoms. Follow the guidelines for disease resistance management listed above.</p> <p>RANMAN 400SC should be tank-mixed with an organosilicone surfactant, preferably Silwet L-77®*, at the manufacturer's label recommendations when water volumes are under 60 gallons per acre. Normal water volumes are 20 to 50 gallons per acre.</p> <p>DO NOT apply more than 16.5 fluid ounces per acre per year.</p> <p>The Pre-Harvest Interval (PHI) for this crop group is 0-day.</p> <p>RANMAN 400SC may be applied through sprinkler irrigation equipment. See calibration directions preceding this section.</p>

Crop	Diseases	Use Rate Fl. Oz. Product Per Acre (lb. ai/A)	Instructions
Potato	Late blight ( <i>Phytophthora infestans</i> )	1.4 to 2.75 (0.036 to 0.071)	<p><b>Resistance Management:</b> DO NOT apply more than 10 sprays of RANMAN 400SC per crop. Alternate sprays of RANMAN 400SC with a fungicide with a different mode of action. DO NOT make more than three consecutive applications of RANMAN 400SC followed by at least three applications of fungicides having different modes of action before applying additional RANMAN 400SC.</p> <p><b>Application instructions:</b> For Late blight control, make fungicide applications on a 7- to 10-day schedule beginning when warning systems forecast disease infection periods, generally at row closure or when conditions are favorable for disease development. Use the low rate and longest interval for preventative applications or very low disease pressure, increasing the rate and shortening the interval as disease pressure and/or fast crop development increases up to the maximum rate and shortest interval. For Late blight tuber rot control, make the last 2 to 3 applications prior to desiccation with RANMAN 400SC at 2.75 fl. oz. applied weekly. Follow the guidelines for disease resistance management listed above.</p> <p>RANMAN 400SC should be tank-mixed with an organosilicone surfactant, preferably Silwet L-77@*, at the manufacturer's label recommendations when water volumes are under 60 gallons per acre. Normal water volumes are 20 to 50 gallons per acre.</p> <p>DO NOT apply more than 27.5 fluid ounces per acre per year.</p> <p>DO NOT apply within 7 days of harvest.</p> <p>RANMAN 400SC may be applied through sprinkler irrigation equipment. See calibration directions preceding this section.</p>

Crop	Diseases	Use Rate Fl. Oz. Product Per Acre (lb. ai/A)	Instructions
Tomato	Late blight ( <i>Phytophthora infestans</i> )	2.1 to 2.75 (0.054 to 0.0710)	<p><b>Resistance Management:</b> DO NOT apply more than six sprays of RANMAN 400SC per crop. Alternate sprays of RANMAN 400SC with a fungicide with a different mode of action. DO NOT make more than three consecutive applications of RANMAN 400SC followed by at least three applications of fungicides having different modes of action before applying additional RANMAN 400SC.</p> <p>For Late blight control, make fungicide applications on a 7- to 10-day schedule beginning when warning systems forecast disease infection periods, generally at flower initiation or when conditions are favorable for disease development. Use the lowest rate and longest interval for preventative applications or very low disease pressure, increasing the rate and shortening the interval as disease pressure and/or fast crop development increases up to the maximum rate and shortest interval.</p> <p>Follow the guidelines for disease resistance management listed above.</p> <p>RANMAN 400SC should be tank-mixed with an organosilicone surfactant, preferably Silwet L-77®*, at the manufacturer's label recommendations when water volumes are under 60 gallons per acre. Normal water volumes are 30 to 60 gallons per acre.</p> <p>DO NOT apply more than 16.5 fluid ounces per acre per year.</p> <p>The Pre-Harvest Interval (PHI) for tomatoes is 0-day.</p>

\*Silwet L-77® is a Registered Trademark of Crompton Corporation.

**PHYTOTOXICITY**

RANMAN 400SC is not phytotoxic to the crop or succeeding crops when applied according to label instructions.

RANMAN 400SC is physically compatible (no nozzle or screen blockage) with the following list of products:

<u>Product</u>	<u>Active Ingredient</u>	<u>Product</u>	<u>Active Ingredient</u>
<b>EDBC (several)</b>	mancozeb	<b>Chlorothalonil (several)</b>	chlorothalonil
<b>Headline / Cabrio</b>	pyraclostrobin	<b>Omega</b>	fluazinam
<b>Quadris / Abound</b>	azoxystrobin	<b>Curzate</b>	cymoxanil
<b>Acrobat</b>	dimethomorph	<b>Previcur</b>	propamocarb hydrochloride
<b>Trigard</b>	cyromazine	<b>Monitor / Tamaron</b>	methamidophos
<b>Lannate</b>	methomyl	<b>Provado</b>	imidacloprid
<b>Decis</b>	deltamethrin	<b>BT (several)</b>	<i>Bacillus thuringiensis</i>
<b>Karate</b>	<i>lambda</i> -cyhalothrin	<b>Applaud</b>	buprofezin
<b>Guthion</b>	azinphos-methyl	<b>Mineral oils</b>	
<b>Thiodan</b>	endosulfan		

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#### **STORAGE AND DISPOSAL**

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DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

**STORAGE:** Store in original container, in a secured, dry place separate from other pesticides, fertilizer, food, and feed.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** DO NOT reuse empty container. Triple rinse (or equivalent) and 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.

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**WARRANTY AND LIMITATION OF DAMAGES**

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Seller warrants to those persons lawfully acquiring title to this product that at the time of first sale of this product by Seller that this product conformed to its chemical description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions under normal conditions of use, and Buyers and users of this product assume the risk of any use contrary to such directions. **EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OR GUARANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO.** In no event shall Seller's liability for any breach of warranty or guaranty exceed the purchase price of the product as to which a claim is made.

Buyers and users of this product are responsible for all loss or damage from use or handling of this product which results from conditions beyond the control of Seller, including, but not limited to, incompatibility with other products unless otherwise expressly provided in Directions for Use of this product, weather conditions, cultural practices, moisture conditions or other environmental conditions outside of the ranges that are generally recognized as being conducive to good agricultural and/or horticultural practices.

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