



**OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION**

WASHINGTON, D.C. 20460

June 6, 2025

Frederick Salzman  
Regulatory Manager  
ISK BIOSCIENCES CORPORATION  
7470 Auburn Road, Suite A  
Concord, OH 44077

Subject: PRIA Label Amendment – Adding use on parsnips, dried shelled bean (except soybean), subgroup 6-22E and crop group expansions to edible podded bean subgroup 6-22A and succulent shelled bean subgroup 6-22C and Cyazofamid registration review label mitigation.  
Product Name: Ranman 400SC  
EPA Registration Number: 71512-3  
Application Date: April 11, 2023, July 9, 2020  
Case Number: 482615, 482495

Dear Frederick Salzman:

The application referred to above, submitted under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable under FIFRA section 3(c)(5).

You must submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Cyazofamid Interim Decision, and has concluded that your submission is acceptable.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this

product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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

If you have any questions, please contact thomas Harty at 202-566-0394 or at [harty.thomas@epa.gov](mailto:harty.thomas@epa.gov).

Sincerely,

A handwritten signature in cursive script, appearing to read "C. L. Giles-Parker".

Cynthia L. Giles-Parker, Chief  
Fungicide Branch  
Registration Division (7505T)

Enclosure -stamped "accepted" label



**RANMAN® 400SC**

## AGRICULTURAL FUNGICIDE

ACTIVE INGREDIENT: Cyazofamid\* ..... 34.5%  
 OTHER INGREDIENTS: ..... 65.5%  
 Total..... 100.0%

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

Contains 3.34 pounds Cyazofamid Per Gallon (400 grams per liter)

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See side panel for additional precautionary statements.

Read entire label carefully and use only as directed.

**ISK Biosciences Corporation**

7470 Auburn Road, Suite A  
 Concord, Ohio 44077 U.S.A.

EPA Reg. No. 71512-3

EPA Est. No.

Net Contents:

**ACCEPTED**

**71512-3**

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

06/06/2025

## FIRST AID

<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 eye.</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.

## HOT LINE NUMBER

For **24-Hour Medical Emergency Assistance** (Human or Animal)  
 Call **1-888-484-7546**.

For **Chemical Emergency**, Spill, Leak, Fire or Accident, Call  
**CHEMTREC 1-800-424-9300**.

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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 chemical resistant gloves made of any waterproof material.

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 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.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates. 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. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

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 must be observed.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container, in a secured, dry place separate from 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:** Nonrefillable container (greater than 5 gallons). DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable container (equal to or less than 5 gallons). DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 Seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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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.

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.

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

Do not use for disease control on fruiting vegetables (other than tomatoes or bell peppers) or cucurbit vegetables (other than cucumbers) grown for fruit production in greenhouses.

### **ROTATIONAL CROP RESTRICTIONS**

Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.

### **AGRICULTURAL USE REQUIREMENTS**

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

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of twelve (12) 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, chemical resistant gloves made of any waterproof material, shoes plus socks and protective eyewear.

## **PRODUCT INFORMATION**

### **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 of formulation before adding this product to the spray tank.

Dosage rates on this label indicate fluid ounces of RANMAN 400SC per acre, unless otherwise stated. Under conditions favorable for disease development, use the highest rate specified and shortest application interval. For best product performance in all applications utilizing water volumes up to 60 gallons per acre, add an organosilicone surfactant according to the manufacturer's label recommendations in order to improve spray coverage when the disease infection is severe. However, a non-ionic surfactant or a blend of an organosilicone and a non-ionic surfactant may be used according to the manufacturer's label when disease infection is moderate or light. Do not use a surfactant in applications to grapes or in soil drench applications to greenhouse grown bell peppers or tomato greenhouse transplants.

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

Add the required amount of RANMAN 400SC 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.

## TANK MIX COMPATIBILITY

RANMAN 400SC is physically compatible (no nozzle or screen blockage) with many products recommended for control of diseases and insects on vegetable crops. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. RANMAN 400SC is generally compatible with other insecticides, fungicides, fertilizers and micronutrient products provided sufficient free water is available for dispersion of all the tank mix products. However, the physical compatibility of RANMAN 400SC with tank mix partners must be evaluated before use. Conduct a jar test with intended tank-mix pesticides prior to preparation of large volumes. Use the following procedure: 1) Pour the recommended proportions of the products into a suitable container of water, 2) Mix thoroughly and 3) Allow to stand 5 minutes. If the combination remains mixed or can be re-mixed readily, it is considered physically compatible. Any physical incompatibility in the jar test indicates that RANMAN 400SC should not be used in the tank-mix.

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

<b><u>Product</u></b>	<b><u>Active Ingredient</u></b>
<b>Acrobat</b>	<b>dimethomorph</b>
<b>Applaud</b>	<b>buprofezin</b>
<b>BT (several)</b>	<b>Bacillus thuringiensis</b>
<b>Chlorothalonil (several)</b>	<b>chlorothalonil</b>
<b>Curzate</b>	<b>cymoxanil</b>
<b>Decis</b>	<b>deltamethrin</b>
<b>EDBC (several)</b>	<b>mancozeb</b>
<b>Guthion</b>	<b>azinphos-methyl</b>
<b>Headline /Cabrio</b>	<b>pyraclostrobin</b>
<b>Karate</b>	<b>lambda-cyhalothrin</b>
<b>Lannate</b>	<b>methomyl</b>
<b>Mineral oils</b>	

<b>Monitor / Tamaron</b>	<b>methamidophos</b>
<b>Omega</b>	<b>fluazinam</b>
<b>Previcur</b>	<b>Propamocarb hydrochloride</b>
<b>Provado</b>	<b>imidacloprid</b>
<b>Quadris /Abound</b>	<b>azoxystrobin</b>
<b>Thiodan</b>	<b>endosulfan</b>
<b>Trigard</b>	<b>cyromazine</b>

## CROP RESPONSE

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

## SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

## IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### Controlling Droplet Size - Ground Boom

- Volume – Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure – Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle – Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### Controlling Droplet Size - Aircraft

- Adjust Nozzles – Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift.

### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

### **WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### **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. RANMAN 400SC's mode/target site of action is complex III of fungal respiration: ubiquinone reductase, Qi site, FRAC code 21. 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.

For resistance management, RANMAN 400SC contains a Group 21 fungicide. Any fungal population may contain individuals naturally resistant to RANMAN 400SC and other Group 21 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance, take one or more of the following steps:

- Rotate RANMAN 400SC or other Group 21 fungicides within a growing season with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease

development, disease thresholds, as well as cultural, biological and other chemical control practices.

- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.

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.



DIRECTIONS FOR USE			
Crop	Diseases	Use Rate Fl. Oz. Product Per Acre (lb. ai/A)	Directions for Use
*HERB SUBGROUP 19A	Downy mildew ( <i>Peronospora belbahrii</i> )	2.75 to 3.0 (0.072 to 0.078)	<p><b>Resistance Management:</b> DO NOT apply more than 9 applications 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. Follow this by at least three applications of fungicides having a different mode of action before applying additional RANMAN 400SC.</p> <p><b>Application Instructions:</b> For control of downy mildew on herbs, make the applications on a 7- to 10-day schedule beginning when disease conditions are favorable for disease development. Use the lower rate and longest interval as disease preventative sprays or when disease conditions are low. Increase to the highest rate and shortest interval under moderate to heavy disease pressure.</p> <p>RANMAN 400SC can be applied on herbs grown in a greenhouse.</p> <p>RANMAN 400SC should be tank-mixed with an organosilicone surfactant when the disease infection is severe, or a non-ionic surfactant or a blend of organosilicone and a non-ionic surfactant when disease infection is moderate or light, at the manufacturer's label recommendation for water volumes up to 60 gallons per acre. Normal water volumes are 50 to 75 gallons per acre.</p> <p>RANMAN 400SC may be applied through sprinkler irrigation equipment. See calibration directions elsewhere on the label.</p> <p><b>Restrictions:</b> DO NOT apply more than 27 fluid ounces (0.7 lb a.i.) per acre per year. The Pre-Harvest Interval (PHI) for this crop is 0 days. Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.</p>
<p>*Includes all members of the Herb Crop Subgroup 19A: angelica; balm; basil; borage; burnet; camomile; catnip; chervil (dried); chive; Chinese chive; clary; coriander leaf (cilantro or Chinese parsley); costmary; culantro (leaf); curry (leaf); dillweed; horehound; hyssop; lavender; lemongrass; lovage (leaf); marigold; marjoram (includes sweet or annual marjoram, wild marjoram or oregano, and pot marjoram); nasturtium; parsley (dried); pennyroyal; rosemary; rue; sage; summer and winter savory; sweet bay; tansy; tarragon; thyme; wintergreen; woodruff; and wormwood.</p>			



Crop	Diseases	Use Rate Fl. Oz. Product Per Acre (lb. ai/A)	Directions for Use
<b>Carrot.</b>  <b>Parsnip, root</b>	Cavity spot, Root Dieback, Forking  <i>(Pythium ultimum,</i> <i>P. violae,</i> <i>P. sulcatum,</i> <i>P. irregular,</i> <i>P. splendens)</i>	6 (0.156)	<p><b>Resistance Management:</b>            DO NOT apply more than 5 sprays of Ranman 400SC per crop. Alternate sprays of Ranman 400SC with a fungicide with a different mode of action.</p> <p><b>Application Instructions:</b>            Pre-plant incorporated (broadcast or band): Apply in sufficient water to obtain adequate coverage within 3 days of planting and mechanically till into the soil to a depth of at least 2 inches or incorporate with at least 1/4 inch of water.</p> <p>Surface applications (broadcast or band): Subsequent applications may be made beginning at 14 days after plant emergence and continue on a 14-21 day schedule. Apply in sufficient water to obtain adequate coverage with the applications directed to the base of the plant. Ranman 400SC should be incorporated into the soil with 1/2 to 1 inch of water. If irrigation is not immediately available after the application, then the application should be made in sufficient water to allow penetration into the soil.</p> <p>Ranman 400SC may be applied via any overhead irrigation system. Follow directions outlined in the Application and Calibration Techniques For Sprinkler Irrigation section of the label. Ranman 400SC should be applied during the last 2 hours of the irrigation cycle to allow for adequate soil penetration.</p> <p>For banded applications a 6 to 8 inch band is recommended (See formula to calculate amount required in the band).</p> <p>Calculate the amount of Ranman 400SC needed for band treatments by the formula:</p> $\frac{\text{band width in inches}}{\text{row spacing in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$ <p><b>Restrictions</b>            DO NOT use more than 30 fl oz per acre per year.            DO NOT use any adjuvant when applying to carrots or parsnips.            DO NOT apply within 14 days of harvest.            Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.</p>



Crop	Diseases	Use Rate Fl. Oz. Product Per Acre (lb. ai/A)	Directions for Use
<b>Ginseng</b>	Pythium root rot,  Phytophthora foliar blight and root rot	6 (0.16)	<p><b>Resistance Management:</b> DO NOT apply more than six sprays of RANMAN 400SC per acre per year. 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. Follow this by at least three applications of fungicides having a different mode of action before applying additional RANMAN 400SC.</p> <p><b>Application Instructions:</b> Apply RANMAN 400SC at the rate of 6 fl. oz. (0.16 lb. a.i.) per acre per application on a 10-day schedule as a foliar broadcast application to control Pythium root rot, Phytophthora foliar blight and root rot. Apply with ground equipment in adequate water for uniform coverage. Coverage is essential for good control. Use of higher water volume will assure better coverage.</p> <p>Application water volumes for ground applications should be at least 60 to 100 gallons per acre.</p> <p><b>Restrictions</b> DO NOT apply more than 36 fluid ounces (0.94 lb. AI) per acre per year. DO NOT apply to ginseng via aerial application equipment. The Pre-Harvest Interval (PHI) for this crop is 7 days.</p>

Crop	Diseases	Use Rate Fl. Oz. Product Per Acre (lb. ai/A)	Directions for Use
<b>GRAPES</b> East of the Rocky Mountains	Downy mildew ( <i>Plasmopara viticola</i> )	2.1 to 2.75 (0.054 to 0.072)	<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. Follow this by at least three applications of fungicides having a different mode of action before applying additional RANMAN 400SC.</p> <p><b>Application Instructions:</b>  For Downy mildew control, make fungicide applications on a 10- to 14-day schedule beginning when warning systems forecast disease infection periods or when disease 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. Do not use any surfactant with this application.</p> <p>Application water volumes for ground applications should be at least 100 gallons per acre.</p> <p>RANMAN 400SC may be applied via aerial application using a minimum of 5 gallons of water volume per acre.</p> <p><b>Restrictions</b>  DO NOT apply more than 16.5 fluid ounces (0.43 lb. AI) per acre per year.  The Pre-Harvest Interval (PHI) for this crop is 30 days.</p>
<b>HOPS</b>	Downy mildew ( <i>Pseudoperonospora humuli</i> )	2.1 to 2.75 (0.054 to 0.072)	<p><b>Resistance Management:</b>  DO NOT apply more than six applications of RANMAN 400SC per crop. Alternate foliar sprays of RANMAN 400SC with a fungicide with a different mode of action. DO NOT make more than three consecutive applications of RANMAN 400SC. Follow this by at least three applications of fungicides having a different mode 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 when disease is first seen or weather and downy mildew disease pressure are expected to initiate a disease epidemic. 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. Use water spray volume of at least 100 gallons per acre.</p> <p><b>Restrictions:</b>  DO NOT apply more than 16.5 fl oz (0.43 lb. AI) per acre per year.  The Pre-Harvest Interval for this listed crop is 3 days.  Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.</p>

Crop	Diseases	Use Rate Fl. Oz. Product Per Acre (lb. ai/A)	Directions for Use
Leafy Greens Subgroup 4-16A	White rust ( <i>Albugo occidentalis</i> )	2.75 (0.072)	<b>Resistance Management:</b> DO NOT apply more than six applications 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. Follow this by at least three applications of fungicides having a different mode of action before applying additional RANMAN 400SC.  <b>Application Instructions</b> For white rust control, make fungicide applications on a 7- to 10-day schedule beginning when disease is first seen or weather and white rust disease pressure are expected to initiate a disease epidemic. Use the longest interval for preventative applications or very low disease pressure, shortening the interval as disease pressure and/or fast crop development increases up to the shortest interval.  For downy mildew control, make fungicide applications on a 7- to 10-day schedule beginning when disease first appears or when disease conditions are favorable for disease development. Use the longest interval for disease preventative sprays or when disease conditions are low. Increase application frequency to the shortest interval under moderate to heavy disease pressure.  For Pythium control, make the first application to the soil as a directed, post transplant or post planting application. Make this application within 24 hours of transplanting or seeding. The directed application should be made as a band 4 to 6 inches wide over the seed line or transplants. Direct the entire per-acre rate into the band. Calculate the application rate using the row width. Then, irrigate within 24 hours of the first application with one half (1/2) to one (1) inch of water to properly move the product into the root zone. Alternatively, RANMAN 400SC may be applied in transplant water at the time of transplanting. Do not use a surfactant with this soil drench application. It is recommended that the water volume for this initial application be at least 50 gallons per acre. Additional applications should be made on a 7- to 10-day schedule beginning when conditions are favorable for disease development.  RANMAN 400SC should be tank-mixed with an organosilicone surfactant when the disease infection is severe, or a non-ionic surfactant or a blend of organosilicone and a non-ionic surfactant when disease infection is moderate or light, at the manufacturer’s label recommendation for water volumes up to 60 gallons per acre. Normal water volumes are 30 to 60 gallons per acre.  RANMAN 400SC may be applied through sprinkler irrigation equipment. See calibration directions elsewhere on the label.  <b>Restrictions:</b> DO NOT apply more than 16.5 fluid ounces (0.43 lb a.i.) per acre per year. The Pre-Harvest Interval (PHI) for this crop group is 0 days. Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.
	Downy mildew ( <i>Bremia lactucae</i> )	2.75 (0.072)	
	Pythium Damping-off ( <i>Pythium spp.</i> )	2.75 (0.072)	
Includes all members of the Leafy Greens crop subgroup 4-16A: Amaranth, (Chinese and leafy); aster, Indian; blackjack; cat’s whiskers; cham-chwi; cham-na-mul; chervil, fresh leaves; chipilin; chrysanthemum, garland; cilantro, fresh leaves; corn salad; cosmos; dandelion, leaves; dang-gwi, leaves; dillweed; dock (sorrel); dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; good king henry; huauzontle; jute, leaves; lettuce (bitter, head and leaf); orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane, (garden and winter); radicchio (red chicory); spinach; spinach, (Malabar, New Zealand and tanier); Swiss chard; violet, Chinese, leaves; and cultivars, varieties, and hybrids of these commodities.			

Crop	Diseases	Use Rate Fl. Oz. Product Per Acre (lb. ai/A)	Directions for Use
<b>Edible Podded Bean Subgroup 6-22A</b>  <b>Succulent Shelled Bean Subgroup 6-22C</b>  <b>Pulses, Dried Shelled Bean, except soybean, Subgroup 6-22E</b>  <b>Chickpea (garbanzo bean), edible podded and succulent shelled</b>	Cottony leak ( <i>Pythium aphanidermatum</i> ) <i>Pythium ultimum</i> )          Downy mildew ( <i>Phytophthora phaseoli</i> )       Phytophthora blight ( <i>Phytophthora capsici</i> )	2.75 (0.072)	<p><b>Resistance Management:</b> DO NOT apply more than six applications 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. Follow this by at least three applications of fungicides having a different mode of action before applying additional RANMAN 400SC.</p> <p><b>Application Instructions</b> For cottony leak control, make the initial application at full bloom (1<sup>st</sup> pods) and repeat on a 7- to 14-day schedule. Use the longest interval for disease preventative sprays or when disease conditions are low. Increase application frequency to the shortest interval under moderate to heavy disease pressure.</p> <p>For control of downy mildew on lima beans, make the applications on a 7- to 10-day schedule beginning when disease first appears or when disease conditions are favorable for disease development. Use the longest interval for disease preventative sprays or when disease conditions are low. Increase the application frequency to the shortest interval under moderate to heavy disease pressure.</p> <p>For Phytophthora blight control, make the 1<sup>st</sup> application at 100% bloom-pin pod development and a 2<sup>nd</sup> application at late pin-small pod development and repeat every 7 days as needed to maintain disease control.</p> <p>RANMAN 400SC should be tank-mixed with an organosilicone surfactant when the disease infection is severe, or a non-ionic surfactant or a blend of organosilicone and a non-ionic surfactant when disease infection is moderate or light, at the manufacturer's label recommendation for water volumes up to 60 gallons per acre. Normal water volumes are 20 to 60 gallons per acre.</p> <p>RANMAN 400SC may be applied through sprinkler irrigation equipment. See calibration directions elsewhere on the label.</p> <p><b>Restrictions:</b> DO NOT apply more than 16.5 fluid ounces (0.43 lb a.i.) per acre per year. DO NOT apply to cowpeas used for livestock feed. The Pre-Harvest Interval (PHI) for the edible podded and succulent shelled bean crop subgroups is 0 days. The Pre-Harvest Interval (PHI) for the dry bean crop subgroup is 14 days. Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.</p>
Includes all members of the Edible-podded Bean Subgroup 6-22A: Bean ( <i>Phaseolus</i> spp.; including, but not limited to French bean, garden bean, green bean, kidney bean, navy bean, scarlet runner bean, snap bean, and wax bean); Bean ( <i>Vigna</i> spp.; including, but not limited to asparagus bean, catjang bean,			



Chinese longbean, cowpea, moth bean, mung bean, rice bean, urd bean, and yardlong bean); goa bean (asparagus pea and winged bean); guar bean; jackbean; lablab bean; sword bean; vegetable soybean (edamame); velvetbean; winged pea; cultivars, varieties, and/or hybrids of these commodities.

Includes all members of the Succulent Shelled Bean Subgroup 6-22C: Bean (*Phaseolus* spp.; including, but not limited to lima bean scarlet runner bean, and wax bean); Bean (*Vigna* spp.; including, but not limited to blackeyed pea, catjang bean, cowpea, crowder pea, moth bean, and southern pea); Bean (*Lupinus* spp.; including, but not limited to Andean lupin, blue lupin, grain lupin, sweet lupin, white lupin, white sweet lupin, and yellow lupin); broad bean (fava bean); jackbean, goa bean (asparagus pea and winged bean); lablab bean; vegetable soybean (edamame); velvetbean; cultivars. varieties, and/or hybrids of these commodities.

Pulses, dried shelled bean, except soybean, subgroup 6-22E, includes: African yam-bean; American potato bean; Bean (*Lupinus* spp.; including, but not limited to Andean lupin, blue lupin, grain lupin, sweet lupin, white lupin, white sweet lupin and yellow lupin); Bean (*Phaseolus* spp.; including, but not limited to black bean, cranberry bean, dry bean, field bean, French bean, garden bean, great northern bean, green bean, kidney bean, lima bean, navy bean, pink bean, pinto bean, red bean, scarlet runner bean, tepary bean and yellow bean); Bean (*Vigna* spp.; including, but not limited to adzuki bean, asparagus bean, blackeyed pea, catjang bean, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, and yardlong bean); broad bean (fava bean); guar bean; goa bean (asparagus pea and winged bean); horse gram; jackbean; lablab bean; morama bean; sword bean; winged pea; velvetbean; cultivars, varieties, and/or hybrids of these commodities.

Crop	Diseases	Use Rate Fl. Oz. Product Per Acre (lb. ai/A)	Directions for Use
<p><b>Tuberous and Corm Vegetables:</b> <b>Crop Subgroup 1C</b></p> <p><b>Arracacha;</b> <b>arrowroot;</b> <b>Chinese artichoke;</b> <b>Jerusalem artichoke;</b> <b>Edible canna;</b> <b>Bitter cassava;</b> <b>Sweet Cassava;</b> <b>Chayote (root);</b> <b>Chufa; Dasheen (taro);</b> <b>Ginger;</b> <b>Leren;</b> <b>Potato;</b> <b>Sweet potato;</b> <b>Tanier;</b> <b>Turmeric;</b> <b>Yam bean;</b> <b>True yam</b></p>	<p>Late blight (<i>Phytophthora infestans</i>) Taro Leaf Blight (<i>Phytophthora colocaseae</i>)</p> <p>Pink Rot (<i>Phytophthora erythroseptica</i>)</p> <p>Pythium Root &amp; Crown Rot (<i>Pythium spp.</i>)</p>	<p><b>Foliar</b> 1.4 to 2.75 (0.036 to 0.072)</p> <p><b>At Planting:</b> 0.42 fl. oz./ 1000 linear ft [Equivalent to 6.1 fl. oz./A on 36"row spacing] (0.158)</p> <p><b>Lay-by/Hilling:</b> 2.75 fl. oz. /A (0.072)</p>	<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. Follow this by at least three applications of fungicides having a different mode of action before applying additional RANMAN 400SC.</p> <p>For pink rot Pythium root and crown rot control, do not use <b>RANMAN 400SC</b> at reduced rates as incomplete control may occur promoting potential for development of resistant strains. Rotate other fungicides with a different mode of action or tank-mix these fungicides with <b>RANMAN 400SC</b> to reduce the chance of resistance occurring. Development of resistance cannot be predicted. If a treatment of <b>RANMAN 400SC</b> is not effective, a resistant strain of fungi may be present. Accordingly, neither <b>RANMAN 400SC</b> nor other fungicides with a similar mode of action will effectively control the disease. Consult your local State University for alternative recommendations.</p> <p><b>Application Instructions:</b> For foliar 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.</p> <p>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.</p> <p>For pink rot, Pythium root and crown rot control at planting, apply 0.42 fluid ounces of product per 1000 linear foot of row in-furrow at planting using a minimum of 5 gallons of water per acre. Apply RANMAN 400SC using a 6 to 8 inch band directly over the seed pieces prior to furrow closure. A side dressing of RANMAN 400SC applied at hilling may be necessary for additional control. Where mefenoxam-resistant strains of <i>Phytophthora erythroseptica</i> and <i>Pythium</i> species are not present, a full rate of RANMAN 400SC can be tank-mixed with mefenoxam containing fungicides for additional control.</p> <p>For additional control of Pink Rot, Pythium root and crown rot in combination with an at-planting, in-furrow, RANMAN 400SC application, apply RANMAN 400SC as a broadcast spray at 2.75 fluid ounces in a minimum of 20 gallons of finished spray solution per acre at hilling. Additional applications on a 7- to 10-day schedule may be needed depending on susceptibility of the crop to pink, root and/or crown rot disease, environmental conditions conducive to favor severe disease development, or fields located in long growing season areas, etc. (Follow the resistance management procedures above.)</p> <p>Follow the guidelines for disease resistance management listed above. RANMAN 400SC should be tank-mixed with an organosilicone surfactant when the disease infection is severe, or a non-ionic surfactant or a blend of an organosilicone and a non-ionic surfactant when disease infection is moderate or light, at the manufacturer's label recommendations for water volumes up to 60 gallons per acre. Normal water volumes are 20 to 50 gallons per acre.</p>

Crop	Diseases	Use Rate Fl. Oz. Product Per Acre (lb. ai/A)	Directions for Use
<b>Tuberous and Corm Vegetables:</b> <b>Crop Subgroup 1C</b> <b>(continued)</b>			<p>RANMAN 400SC may be applied through sprinkler irrigation equipment. See calibration directions following this section.</p> <p><b>Restrictions</b>            DO NOT apply more than 27.5 fluid ounces (0.72 lb a.i.) per acre per year.            DO NOT apply within 7 days of harvest.            Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.</p>
<b>*BULB VEGETABLES:</b>  <b>Crop Group 3-07</b>	Downy mildew <i>(Peronospora destructor)</i>	2.75 to 3.0 (0.072 to 0.078)	<p><b>Resistance Management:</b>            DO NOT apply more than 6 applications of RANMAN 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. Follow this by at least three applications of fungicides having a different mode of action before applying additional RANMAN 400SC.</p> <p><b>Application Instructions:</b>            For control of downy mildew on bulb vegetables make the applications on a 7- to 10-day schedule beginning when disease conditions are favorable for disease development. Use the lower rate and longest interval as disease preventative sprays or when disease conditions are low. Increase to the highest rate and shortest interval under moderate to heavy disease pressure.</p> <p>RANMAN 400SC should be tank-mixed with an organosilicone surfactant when the disease infection is severe, or a non-ionic surfactant or a blend of an organosilicone and a non-ionic surfactant when disease infection is moderate or light, at the manufacturer's label recommendations for water volumes up to 60 gallons per acre. Normal water volumes are 50 to 75 gallons per acre.</p> <p>RANMAN 400SC may be applied through sprinkler irrigation equipment. See calibration directions following this section.</p> <p><b>Restrictions:</b>            DO NOT apply more than 16.5 fluid ounces (0.42 lb. a.i.) per acre per year.            The Pre-Harvest Interval (PHI) for this crop is 0-day.            Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.</p>
<p>*Includes all members of the Bulb Vegetable Crop Group 3-07: Chive, fresh leaves; chive, Chinese fresh leaves; daylily, bulb; elegans hosta; fritillaria, bulb and leaves; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; lily, bulb; onion, Beltsville bunching; onion, bulb; onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; onion, pearl; onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; shallot, bulb; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these.</p>			

<b>FRUITING VEGETABLES: Crop Group 8-10 includes:</b>  African eggplant; Bush Tomato; Bell pepper; Concona; Currant tomato; Eggplant; Garden huckleberry; Goji berry; Ground Cherry; Martynia; Naranjilla; Okra; Pea eggplant; Pepino; Nonbell pepper; Roselle; Scarlet eggplant; Sunberry; Tomatillo; Tomato (field and greenhouse grown); Tree tomato; Cultivars, varieties, and/or hybrids of these.  Tomato Greenhouse Transplants (Soil Drench)  Greenhouse Grown Bell Pepper (Soil Drench)	Late blight ( <i>Phytophthora infestans</i> )  Downy mildew ( <i>Phytophthora infestans</i> )	2.1 to 2.75 (0.054 to 0.072)	<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. Follow this by at least three applications of fungicides having a different mode of action before applying additional RANMAN 400SC.  <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 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.  For <i>Phytophthora</i> blight control, apply RANMAN 400SC to the base of the plants at the time of transplanting. Alternatively, RANMAN 400SC may be applied in transplant water at the time of transplanting. Apply 2.75 fl oz per acre in the transplant water. It is recommended that the water volume for this initial application be at least 50 gallons per acre. Additional foliar applications should be made on a 7- to 10-day schedule beginning when conditions are favorable for disease development.  RANMAN 400SC should be tank-mixed with an organosilicone surfactant when the disease infection is severe, or a non-ionic surfactant or a blend of an organosilicone and a non-ionic surfactant when disease infection is moderate or light, at the manufacturer's label recommendations for water volumes up to 60 gallons per acre. Normal water volumes are 30 to 60 gallons per acre.  RANMAN 400SC may be applied through sprinkler irrigation equipment. See calibration directions following this section.  <b>Restrictions</b> DO NOT apply more than 16.5 fluid ounces (0.43 lb a.i.) per acre per year. The Pre-Harvest Interval (PHI) for these listed crops is 0 day. Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.
	<i>Phytophthora</i> blight ( <i>Phytophthora capsici</i> )	2.75 (0.072)	<b>Tomato Greenhouse Transplant Production:</b> For control of damping-off caused by <i>Pythium spp.</i> make a single fungicide application to the seedling tray at the time of planting or at any time thereafter up until 1 week before transplanting. Apply the fungicide solution as a drench to thoroughly wet the growing medium. This results in the use of approximately 1 pint of solution per square foot if the growing medium is 4 inches deep. Do not use any surfactant with this drench application.  <b>Greenhouse Grown Bell Peppers (Soil Drench):</b> For control of <i>Phytophthora</i> and <i>Pythium spp.</i> in production grown peppers in the greenhouse, apply the first application at transplanting or up to first fruit set, using 5 fl. oz. of the drench solution per plant. Apply the fungicide solution as a drench to thoroughly wet the growing medium. A second drench application may be applied if necessary after 42 days at the rate of 8.5 fl. oz. of the drench solution. Do not use any surfactant with these drench applications. Do not exceed 13.5 fl. oz. of the drench solution per plant. The PHI for this use is 0 day.
	Pythium Damping-off ( <i>Pythium spp.</i> )	3 fl oz/100 gallons water (0.078 lb a.i./ 100 gallons water)	
	<i>Phytophthora</i> blight, crown and root rot ( <i>Phytophthora capsici</i> ) Pythium Damping-off ( <i>Pythium spp.</i> )	3.2 fl oz/100 gallons water (0.083 lb a.i./ 100 gallons water)	

## **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.

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

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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. To the extent consistent with applicable law, 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. To the extent consistent with applicable law, 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.

Ranman<sup>®</sup> is a registered trademark of Ishihara Sangyo Kaisha, Ltd.  
Ranman - 02072025

**ACCEPTED**

06/06/2025

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 71512-3

RANMAN® 400SC

**Supplemental Labeling****SUPPLEMENTAL DIRECTIONS FOR THE USE OF****Ranman 400SC  
(EPA Reg. No. 71512-3)****FOR CONTROL OF CAVITY SPOT, ROOT DIEBACK/FORKING ON PARSNIP**

This Supplemental Label Expires on 3/31/2027 and must not be used or distributed after this date.

**Directions for Use:**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read the label affixed to the container for Ranman 400SC before applying. Use of Ranman 400SC according to this labeling is subject to the precautions and limitations imposed by the label affixed to the container for Ranman 400SC.

DISEASES		RATE PER ACRE					
CROP: PARSNIP							
Cavity spot/ Root Dieback/ Forking	<i>Pythium ultimum</i> <i>P. violae</i> , <i>P. sulcatum</i> <i>P. irregulare</i> , <i>P. splendens</i>	6.0 fl oz (0.156 lb. a.i./A)					
APPLICATION DIRECTIONS							
<p>Pre-plant incorporated (broadcast or band): Apply in sufficient water to obtain adequate coverage within 3 days of planting and mechanically till into the soil to a depth of at least 2 inches or incorporate with at least 1/4 inch of water.</p> <p>Surface applications (broadcast or band): Subsequent applications may be made beginning at 14 days after plant emergence and continue on a 14-21 day schedule. Apply in sufficient water to obtain adequate coverage with the applications directed to the base of the plant. Ranman 400SC should be incorporated into the soil with ½ to 1 inch of water. If irrigation is not immediately available after the application, then the application should be made in sufficient water to allow penetration into the soil.</p> <p>Ranman 400SC may be applied via any overhead irrigation system. Follow directions outlined in the Application and Calibration Techniques For Sprinkler Irrigation section of the label. Ranman 400SC should be applied during the last 2 hours of the irrigation cycle to allow for adequate soil penetration.</p> <p>For banded applications a 6 to 8 inch band is recommended (See formula to calculate amount required in the band).</p> <p>Calculate the amount of Ranman 400SC needed for band treatments by the formula:</p> <table><tr><td><math display="block">\frac{\text{band width in inches}}{\text{row spacing in inches}}</math></td><td>X</td><td>broadcast rate per acre</td><td>=</td><td>amount needed per acre of field</td></tr></table> <p><b>Resistance Management:</b> DO NOT apply more than 5 sprays of Ranman 400SC per crop. Alternate sprays of Ranman 400SC with a fungicide with a different mode of action.</p> <p><b>Restrictions:</b> DO NOT use more than 30 fl oz per growing season. DO NOT use any adjuvant when applying to parsnips. DO NOT apply within 14 days of harvest. Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.</p>			$\frac{\text{band width in inches}}{\text{row spacing in inches}}$	X	broadcast rate per acre	=	amount needed per acre of field
$\frac{\text{band width in inches}}{\text{row spacing in inches}}$	X	broadcast rate per acre	=	amount needed per acre of field			

**NOTE:** Follow all applicable directions, restrictions, and precautions on the **Ranman 400SC** label.

**NOTE:** This labeling must be in the possession of the user at the time of pesticide application.

ISK Biosciences Corporation  
7470 Auburn Rd., Suite A  
Concord, Ohio 44057

Warranty and Limitation of Damages: Seller warrants to those persons lawfully acquiring title to this product that at the time of the first sale of this product by seller that this product conformed to its chemical description and is 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. **SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY, 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 exceed the purchase price of the material 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 products unless otherwise expressly provided in the 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.

**SUPPLEMENTAL DIRECTIONS FOR THE USE OF**
**Ranman 400SC**
**(EPA Reg. No. 71512-3)**
**FOR CONTROL OF LISTED DISEASES ON DRIED SHELLED BEANS (SUBGROUP 6-22E)**

This Supplemental Label Expires on 3/31/2027 and must not be used or distributed after this date.

**Directions for Use:**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read the label affixed to the container for Ranman 400SC before applying. Use of Ranman 400SC according to this labeling is subject to the precautions and limitations imposed by the label affixed to the container for Ranman 400SC.

**Crop: Pulses, Dried Shelled Bean, except soybean, Subgroup 6-22E**

Includes: African yam-bean; American potato bean; Bean (*Lupinus* spp.; including, but not limited to Andean lupin, blue lupin, grain lupin, sweet lupin, white lupin, white sweet lupin and yellow lupin); Bean (*Phaseolus* spp.; including, but not limited to black bean, cranberry bean, dry bean, field bean, French bean, garden bean, great northern bean, green bean, kidney bean, lima bean, navy bean, pink bean, pinto bean, red bean, scarlet runner bean, tepary bean and yellow bean); Bean (*Vigna* spp.; including, but not limited to adzuki bean, asparagus bean, blackeyed pea, catjang bean, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, and yardlong bean); broad bean (fava bean); guar bean; goa bean (asparagus pea and winged bean); horse gram; jackbean; lablab bean; morama bean; sword bean; winged pea; velvetbean; cultivars, varieties, and/or hybrids of these commodities.

<b>DISEASES</b>	<b>RATE PER ACRE</b>
Cottony leak ( <i>Pythium aphanidermatum</i> and <i>ultimum</i> ) Downy Mildew ( <i>Phytophthora phaseoli</i> ) Phytophthora Blight ( <i>Phytophthora capsici</i> )	2.75 fl oz (0.072 lb a.i.)

**APPLICATION DIRECTIONS**
**Resistance Management:**

DO NOT apply more than six applications 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. Follow this by at least three applications of fungicides having a different mode of action before applying additional RANMAN 400SC.

**Application Instructions:**

For cottony leak control, make the initial application at full bloom (1st pods) and repeat on a 7- to 14-day schedule. Use the longest interval for disease preventative sprays or when disease conditions are low. Increase application frequency to the shortest interval under moderate to heavy disease pressure.

For control of downy mildew on lima beans, make the applications on a 7- to 10-day schedule beginning when disease first appears or when disease conditions are favorable for disease development. Use the longest interval for disease preventative sprays or when disease conditions are low. Increase the application frequency to the shortest interval under moderate to heavy disease pressure.

For Phytophthora blight control, make the 1st application at 100% bloom-pin pod development and a 2nd application at late pin-small pod development and repeat every 7 days as needed to maintain disease control.



RANMAN 400SC should be tank-mixed with an organosilicone surfactant when the disease infection is severe, or a non-ionic surfactant or a blend of organosilicone and a non-ionic surfactant when disease infection is moderate or light, at the manufacturer's label recommendation for water volumes up to 60 gallons per acre. Normal water volumes are 20 to 60 gallons per acre.

RANMAN 400SC may be applied through sprinkler irrigation equipment. See calibration directions elsewhere on the label.

**Restrictions:**

DO NOT apply more than 16.5 fluid ounces (0.43 lb a.i.) per acre per year.

DO NOT apply to cowpeas used for livestock feed.

The Pre-Harvest Interval (PHI) for the dry bean crop subgroup is 14 days.

Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.

**IMPORTANT:** Follow all applicable directions, restrictions, and precautions on the **Ranman 400SC** label.

**IMPORTANT:** This labeling must be in the possession of the user at the time of pesticide application.

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