

9/14/2012



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

OFFICE OF CHEMICAL, SAFETY
AND POLLUTION PREVENTION

Mike Peplowski
ISK Biosciences Corporation
7470 Auburn Rd, Suite A
Concord, OH 44077

SEP 14 2012

Subject: Addition of New Uses to Ranman 400SC and Supplemental Labeling for use on Basil
EPA Registration No. 71512-3
Decision No. 456370
Submission Date: 10/11/11

Dear Mr. Peplowski:

The master label referred to above, submitted under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, to add the following uses: bean, succulent; bean, succulent, shelled; leafy greens, subgroup 4A; basil, fresh and dried leaves; vegetable, tuberous and corm, subgroup 1C; and vegetable, fruiting, group 8-10, is acceptable.

The supplemental labeling referred to above, submitted under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, with directions for use on Basil, is acceptable, provided you make the following changes:

1. At the top of the page, add the following statement, "This supplemental label expires on 9/12/15 and must not be used or distributed after this date."
2. Revise the marketing statement, "For control of diseases on basil," to read, "For control of listed diseases on basil."
3. Revise the warranty section to be identical to the master label.

A stamped copy of the master and supplemental labeling is enclosed for your records. Please submit one (1) final printed copy for the above mentioned master label before releasing the product for shipment. If you have any questions, please contact Dominic Schuler at (703) 347-0260 or via email at schuler.dominic@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Tony Kish".

Tony Kish
Product Manager 22
Fungicide Branch
Registration Division (7504P)



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ACCEPTED
with COMMENTS
In EPA Letter Dated

RANMAN® 400SC

Supplemental Labeling

SEP 14 2012 SUPPLEMENTAL DIRECTIONS FOR THE USE OF

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

Ranman 400SC
(EPA Reg. No. 71512-3)

FOR CONTROL OF DISEASES ON BASIL

Directions for Use:

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

CROP: BASIL	
DISEASE	RATE PER ACRE
Downy mildew <i>Peronospora belbahrii</i>	2.75 to 3.0 fl oz (0.071 to 0.078 lb a.i./A)
APPLICATION DIRECTIONS	
<p>Resistance Management: DO NOT apply more than 9 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 followed by at least three applications of fungicides having different modes of action before applying additional RANMAN 400SC.</p> <p>Application Instructions: For control of downy mildew on basil 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. RANMAN 400SC can be applied on basil 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 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>Restrictions: DO NOT apply more than 27 fluid ounces (0.7 lb a.i.) per acre per crop growing season. 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>	

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.



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)-1H-imidazole-1-sulfonamide (CA)

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

KEEP OUT OF REACH OF CHILDREN

CAUTION

See side panel for additional precautionary statements.

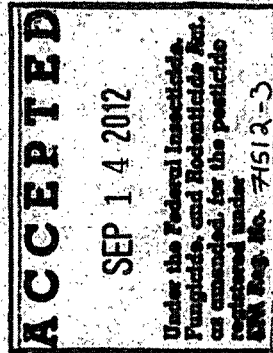
Read entire label carefully and use only as directed.

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

EPA Reg. No. 71512-3 EPA Est. No.

Active Ingredient Made in Germany
 Formulated in France

Net Contents: 2.5 Gallons



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FIRST AID	
If on skin	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of soap and water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	
<p>HOT LINE NUMBER</p> <p>For 24-Hour Medical Emergency Assistance (Human or Animal) Call 1-888-484-7546.</p> <p>For Chemical Emergency, Spill, Leak, Fire or Accident, Call CHEMTREC 1-800-424-9300.</p>	

PRECAUTIONARY STATEMENTS

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

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 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 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 1/4 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.

DIRECTIONS FOR USE

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 use for disease control on fruiting vegetables (other than tomato transplants) or cucurbit vegetables 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

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 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

GENERAL 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 the highest rate specified and shortest application interval

should be used. For best product performance in 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 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 tomato greenhouse transplant production

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

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. Read and follow all manufacturer's label recommendations for the tank mix companion product. It is the applicator's responsibility to ensure that the companion product is EPA approved for use on the intended crop. 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

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

CROP RESPONSE

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

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, Q1 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

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 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)	Instructions
Basil	Downy mildew (<i>Peronospora belbahri</i>)	2.75 to 3.0 (0.071 to 0.078)	<p>Resistance Management 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 followed by at least three applications of fungicides having different modes of action before applying additional RANMAN 400SC.</p> <p>Application Instructions For control of downy mildew on basil, 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 basil 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>Restrictions DO NOT apply more than 27 fluid ounces (0.7 lb a.i.) per acre per crop growing season. 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>

Crop	Diseases	Use Rate Fl Oz Product Per Acre (lb ai/A)	Instructions
<p>BRASSICA (COLE) LEAFY VEGETABLES CROP GROUP 5</p> <p>Broccoli, Chinese broccoli (gai lan), broccoli raab (rapini), Brussels sprouts, cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard (gai choy), cauliflower, cavalo broccolo, collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens, turnip greens</p>	<p>Club root (Plasmodiophora brassicae)</p>	<p>Transplant Soil Drench 12.9 to 25.75 (0.333 to 0.665 per 100 gallons)</p>	<p>Resistance Management DO NOT apply more than six (1 soil + 5 foliar) 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 followed by at least three applications of fungicides having different modes of action before applying additional RANMAN 400SC.</p> <p>Application Instructions Transplant Soil Drench for control of club root Immediately after transplanting make a single application within the rate range listed and apply 1.7 fluid ounces of solution per plant as transplant water. Use the lowest rate for fields with low soil infestation and increase to the higher rates when fields have a history of moderate to high soil infestation.</p> <p>Soil Incorporation Alternatively if desired and for soil with low infiltration rates apply 20 fl oz per acre in a minimum bandwidth of 9 inches along the planting row and incorporate to a soil depth of 6 to 8 inches with a precision incorporator in the same operation. Apply in a water volume of at least 50 gallons per acre. Transplant the seedlings into the treated band. If planting into a bed a broadcast application can be made prior to forming the bed.</p> <p>Foliar sprays for downy mildew 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 longest interval for preventative applications or very low disease pressure. Shorten the interval as disease pressure and/or fast crop development increases down to the shortest interval.</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 30 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>Restrictions DO NOT apply more than 39.5 fl oz per acre per crop growing season [1 soil application at a maximum of 25.75 fl oz/A and 5 foliar applications at 2.75 fl oz/A (13.75 fl oz/A) per application]. The Pre Harvest Interval (PHI) for these listed crops 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>

Crop	Diseases	Use Rate Fl Oz Product Per Acre (lb ai/A)	Instructions
Carrot	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 (0.156)	<p>Resistance Management 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>Application Instructions 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>Restrictions DO NOT use more than 30 fl oz per growing season DO NOT use any adjuvant when applying to carrots 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)	Instructions
<p>CUCURBIT VEGETABLE CROP GROUP 9</p> <ul style="list-style-type: none"> Cantaloupe Chayote Chinese waxgourd Citron Melon Cucumbers Gherkin Gourds Honeydew melons Momordica spp Muskmelon Watermelon Pumpkin Squash Zucchini 	<p>Downy mildew (<i>Pseudoperonospora cubensis</i>)</p> <p>Phytophthora blight (<i>Phytophthora capsici</i>)</p>	<p>2.1 to 2.75 (0.054 to 0.071)</p> <p>2.75 (0.071)</p>	<p>Resistance Management 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>Application Instructions 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.</p> <p>For Phytophthora 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 applications should be made on a 7 to 10 day schedule beginning when conditions are favorable for disease development.</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 20 to 50 gallons per acre.</p> <p>RANMAN 400SC may be applied through sprinkler irrigation equipment. See calibration directions following this section.</p> <p>Restrictions DO NOT apply more than 16.5 fluid ounces (0.43 lb ai) per acre per crop growing season.</p> <p>The Pre Harvest Interval (PHI) for this crop group is 0 day.</p> <p>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)	Instructions
<p>GRAPES East of the Rocky Mountains</p>	<p>Downy mildew (<i>Plasmopara viticola</i>)</p>	<p>2.1 to 2.75 (0.054 to 0.071)</p>	<p>Resistance Management 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>Application Instructions 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>Restrictions DO NOT apply more than 16.5 fluid ounces (0.43 lb AI) per acre per growing season. The Pre Harvest Interval (PHI) for this crop is 30 days.</p>
<p>HOPS</p>	<p>Downy mildew (<i>Pseudoperonospora humuli</i>)</p>	<p>2.1 to 2.75 (0.054 to 0.071)</p>	<p>Resistance Management 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 followed by at least three applications of fungicides having different modes of action before applying additional RANMAN 400SC.</p> <p>Application Instructions 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>Restrictions DO NOT apply more than 16.5 fl oz per acre per crop growing season. 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)	Instructions
<p>Leafy Greens, Crop Subgroup 4A</p> <p>Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Chervil, Edible leaved chrysanthemum Garland chrysanthemum Corn salad, Garden cress, Upland cress (yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Garden purslane, Winter purslane, Radicchio (red chicory), Spinach, New Zealand spinach, Vine spinach (Malabar spinach, Indian spinach)</p>	<p>White rust (<i>Albugo occidentalis</i>)</p> <p>Downy mildew (<i>Bremia lactucae</i>)</p> <p>Pythium Damping off (<i>Pythium spp</i>)</p>	<p>2.75 (0.071)</p> <p>2.75 (0.071)</p> <p>2.75 (0.071)</p>	<p>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 followed by at least three applications of fungicides having different modes of action before applying additional RANMAN 400SC.</p> <p>Application Instructions 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.</p> <p>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.</p> <p>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.</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 30 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>Restrictions DO NOT apply more than 16.5 fluid ounces (0.43 lb ai) per acre per crop growing season. 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.</p>

Crop	Diseases	Use Rate Fl Oz Product Per Acre (lb ai/A)	Instructions
<p>Succulent podded and Succulent shelled Beans</p> <p><i>Cicer arietinum</i> (chickpea, garbanzo bean), <i>Lupinus</i> spp (including sweet lupine, white sweet lupine, white lupine, and gram lupine) <i>Phaseolus</i> spp (including kidney bean, lima bean, mung bean, navy bean, pinto bean, snap bean, and waxbean) <i>Vicia faba</i> (broad bean, fava bean), <i>Vigna</i> spp (including asparagus bean, blackeyed pea and cowpea)</p>	<p>Cottony leak (Pythium aphanidermatum) Pythium ultimum)</p> <p>Downy mildew (<i>Phytophthora phaseoli</i>)</p> <p>Phytophthora blight (<i>Phytophthora capsici</i>)</p>	<p>2.75 (0.071)</p>	<p>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 followed by at least three applications of fungicides having different modes of action before applying additional RANMAN 400SC.</p> <p>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.</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 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.</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>Restrictions DO NOT apply more than 16.5 fluid ounces (0.43 lb ai) per acre per crop growing season. DO NOT apply to cowpeas used for livestock feed. 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.</p>

Crop	Diseases	Use Rate Fl Oz Product Per Acre (lb a/A)	Instructions
<p>Tuberous and Corm Vegetables Crop Subgroup 1C</p> <p>Arracacha arrowroot, Chinese artichoke, Jerusalem artichoke, Edible canna, Bitter cassava Sweet Cassava, Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Potato, Sweet potato, Tanier, Turmeric, Yam bean, True yam</p>	<p>Late blight (<i>Phytophthora infestans</i>) Taro Leaf Blight (<i>Phytophthora colocaseae</i>)</p> <p>Pink Rot (<i>Phytophthora erythroseptica</i>) Pythium Root & Crown Rot (<i>Pythium spp</i>)</p>	<p>Foliar 1.4 to 2.75 (0.036 to 0.071)</p> <p>At Planting 0.42 fl oz/ 1000 linear ft [Equivalent to 6.1 fl oz/A on 36' row spacing] (0.158)</p> <p>Lay by/Hilling 2.75 fl oz /A (0.071)</p>	<p>Resistance Management 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>For pink rot Pythium root and crown rot control, do not use RANMAN 400SC 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 RANMAN 400SC to reduce the chance of resistance occurring. Development of resistance cannot be predicted. If a treatment of RANMAN 400SC is not effective, a resistant strain of fungi may be present. Accordingly, neither RANMAN 400SC nor other fungicides with a similar mode of action will effectively control the disease. Consult your local State University for alternative recommendations.</p> <p>Application Instructions 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 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.</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)	Instructions
Potato (continued)			<p>RANMAN 400SC may be applied through sprinkler irrigation equipment See calibration directions following this section</p> <p>Restrictions DO NOT apply more than 27.5 fluid ounces (0.71 lb ai) per acre per growing season 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>
<p>FRUITING VEGETABLES Crop Group 8 10 includes</p> <ul style="list-style-type: none"> African eggplant Bush Tomato Bell pepper Concona Currant tomato Eggplant Garden huckleberry Goji berry Ground Cherry Martyna Naranjilla Okra Pea eggplant Pepino Nonbell pepper Roselle Scarlet eggplant Sunberry Tomatillo Tomato Tree tomato Cultivars varieties and/or hybrids of these 	<p>Late blight (<i>Phytophthora infestans</i>)</p> <p>Phytophthora blight (<i>Phytophthora capsici</i>)</p>	<p>2.1 to 2.75 (0.054 to 0.071)</p> <p>2.75 (0.071)</p>	<p>Resistance Management 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>Application Instructions 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>For Phytophthora 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 applications should be made on a 7 to 10 day schedule beginning when conditions are favorable for disease development</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 30 to 60 gallons per acre</p> <p>RANMAN 400SC may be applied through sprinkler irrigation equipment See calibration directions following this section</p> <p>Restrictions DO NOT apply more than 16.5 fluid ounces (0.43 lb ai) per acre per crop growing season 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</p>

<p>Tomato Greenhouse Transplants (Soil Drench)</p>	<p>Pythium Damping off (<i>Pythium spp</i>)</p>	<p>3 fl oz/100 gallons water (0.078 lb a / 100 gallons water)</p>	<p>Tomato Greenhouse Transplant Production. 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.</p>
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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.

WARRANTY AND LIMITATION OF DAMAGES

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.

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