

Ranman™ 400SC Agricultural Fungicide

COMMERCIAL

SUSPENSION

READ THE LABEL BEFORE USING

GUARANTEE: Cyazofamid 34.5 %

Contains 400 grams of Cyazofamid per litre

Contains Proxel® GXL at 0.08% as a preservative

REGISTRATION NO: 27984 PEST CONTROL PRODUCTS ACT

Net Contents: 500 ml to 20 L

ISK Biosciences Corporation
7470 Auburn Road
Suite A
Concord, Ohio 44077 U.S.A.
1-440-357-4640 Outside Canada
(Long distance charges apply)

RANMAN is a trademark of Ishihara Sangyo Kaisha, Ltd.
PROXEL is a registered trademark of Avecia Inc.
SYLGARD is a registered trademark of Dow Corning Corporation.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

DO NOT take internally. Harmful if swallowed.

Avoid contact with eyes.

Avoid prolonged contact with skin. Wash exposed areas of skin thoroughly with soap and warm water after handling or using. Remove contaminated clothing and wash before re-use.

Avoid breathing spray mist.

During mixing, loading, clean up and repair: worker must wear a long sleeved shirt, long pants, chemical-resistant gloves and goggles.

During application: worker must wear a long sleeved shirt and long pants.

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

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings.

Pesticide Storage: Store product in original container, in a secured, dry place separate from other pesticides, fertilizer, food, and feed.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted or fine textured such as clay).

Avoid application of this product when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

DIRECTIONS FOR USE

RANMAN 400SC Agricultural Fungicide can be used in dilute sprays. Thorough, uniform coverage is essential for disease control.

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

DO NOT apply by air.

Dosage rates on this label indicate litres of **RANMAN 400SC Agricultural Fungicide** per hectare. Apply **RANMAN 400SC Agricultural Fungicide** in sufficient water volume to obtain coverage of the foliage. Spray volume to be used will vary with the amount of plant growth and will range from 200 to 600 litres per hectare. For all foliar applications, **RANMAN 400SC** should be tank-mixed with a non-ionic or organosilicone surfactant (such as Sylgard 309) at the manufacturer's label recommendations.

The required amount of **RANMAN 400SC Agricultural Fungicide** should be added slowly into the spray tank during filling. Keep agitator running when filling spray tank and during spray operations.

Integrated Pest Management

Although **RANMAN 400SC Agricultural Fungicide** has limited systemic activity, it should be treated as a protectant fungicide and applied before the disease enters the crop. **RANMAN 400SC Agricultural Fungicide** 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 provincial agricultural authorities for additional IPM strategies established in your area. **RANMAN 400SC Agricultural Fungicide** may be used in disease forecasting programs that recommend application timing based upon environmental factors that favour disease development.

Resistance Management

For resistance management, please note that **RANMAN 400SC Agricultural Fungicide** contains a Group 21 fungicide. Any fungal population may contain individuals naturally resistant to **RANMAN 400SC Agricultural Fungicide** 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. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

DIRECTIONS FOR USE
(Continued)

To delay fungicide resistance:

- Where possible, rotate the use of **RANMAN 400SC Agricultural Fungicide** or other Group 21 fungicides with different groups that control the same pathogens.

- **DO NOT** make sequential applications of **RANMAN 400SC Agricultural Fungicide** or other fungicides in the same group. After one application, alternate **RANMAN 400SC Agricultural Fungicide** with at least one application of fungicide having a different mode of action for control of late blight.

- Do not exceed the total number of applications of **RANMAN 400SC Agricultural Fungicide** per season per crop as stated in the “Directions for use” section of the label.

- **RANMAN 400SC Agricultural Fungicide** use should be based on an IPM program that includes scouting, historical information related to pesticide use and crop rotation and considers cultural, biological and other chemical control practices.

- Monitor treated fungal populations for resistance development.

- If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different target site of action, if available.

- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.

- For further information and to report suspected resistance, contact Mark Gelin, ISK Biosciences Corporation, at 1-440-357-4644 Outside Canada (Long distance charges apply) or at gelinm@iskbc.com.

DIRECTIONS FOR USE

(Continued)

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. Consult with your Provincial agricultural authorities for guidance on the proper use of **RANMAN 400SC Agricultural Fungicide** in programs that seek to minimize the occurrence of disease resistance.

<i>Crop</i>	<i>Diseases</i>	<i>Rate/Hectare (Product)</i>	<i>Instructions</i>
Potato	Late blight (<i>Phytophthora infestans</i>)	0.1 to 0.2 L	<p>Resistance Management: DO NOT apply more than six applications of RANMAN 400SC Agricultural Fungicide per crop per year. DO NOT make sequential applications of RANMAN 400SC Agricultural Fungicide or other fungicides in the same group. After one application, alternate RANMAN 400SC Agricultural Fungicide with at least one application of fungicide having a different mode of action for control of late blight.</p> <p>Application instructions: For late blight control, make RANMAN 400SC Agricultural Fungicide applications on a 7 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 (0.1 L product/ha) for preventative applications or very low disease pressure, increasing the rate as disease pressure and/or fast crop development increases, up to the maximum rate (0.2 L product/ha). For late blight tuber rot control, ensure that the last 2 to 3 applications of RANMAN 400SC Agricultural Fungicide prior to desiccation are made at the maximum rate (0.2 L product/ha) following resistance management practices.</p> <p>RANMAN 400SC should be tank-mixed with a non-ionic or organosilicone surfactant (such as Sylgard 309) at the manufacturer’s label recommendations. Spray volume to be used will vary with the amount of plant growth and will range from 200 to 600 litres per hectare.</p> <p>DO NOT apply within 7 days of harvest.</p> <p>A plant back interval of 30 days is required.</p>

DIRECTIONS FOR USE
(Continued)

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS:

The DIRECTIONS FOR USE for this product for the use(s) described below were developed by persons other than ISK Biosciences Corporation and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. ISK Biosciences Corporation itself makes no representation or warranty with respect to performance (efficacy) or crop tolerance (phytotoxicity) claims for this product when used on the crops listed below.

Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold ISK Biosciences Corporation harmless from any claims based on efficacy or phytotoxicity in connection with the use(s) described below.

<i>Crop</i>	<i>Diseases</i>	<i>Rate/Hectare (Product)</i>	<i>Instructions</i>
Cucurbits Vegetables (Crop Group 9), balsam apple, balsam pear, cantaloupe, chayote fruit, Chinese cucumber, Chinese waxgourd, citron melon, cucumber, edible gourd, melon, muskmelon, pumpkin, squash, summer	Downy Mildew (<i>Pseudoperonospera cubensis</i>)	0.15 to 0.2 L in 200 to 600 L of water per hectare	Resistance Management: DO NOT apply more than six applications of RANMAN 400SC Agricultural Fungicide per crop per year. DO NOT make sequential applications of RANMAN 400SC Agricultural Fungicide or other fungicides in the same group. After one application, alternate RANMAN 400SC Agricultural Fungicide with at least one application of fungicide having a different mode of action for control of downy mildew. Where RANMAN 400SC Agricultural Fungicide is applied alone do not exceed 1 spray of a Group 21 fungicide out of every 3 fungicide applications. Do not use consecutive applications of RANMAN 400SC Agricultural Fungicide . Alternate RANMAN 400SC Agricultural Fungicide with fungicides from a different cross-resistance group with satisfactory efficacy against downy mildew.

<p>squash, watermelon, West Indian gherkin and winter squash).</p>			<p>Continue Qil (Group 21) fungicide alternation between successive crops.</p> <p>Application instructions: For late downy mildew control, make RANMAN 400SC Agricultural Fungicide applications on a 7 to 10 day schedule beginning with initial flowering or when disease conditions are favourable for disease development, but prior to disease outbreak. 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>RANMAN 400SC should be tank-mixed with a non-ionic or organosilicone surfactant (such as Sylgard 309) at the manufacturer's label recommendations. Spray volume to be used will vary with the amount of plant growth and will range from 200 to 600 litres per hectare.</p> <p>DO NOT apply within 1 day of harvest.</p> <p>A plant back interval of 30 days is required.</p>
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<p>Carrots</p>	<p>Cavity Spot, Root Dieback/Forking (<i>Pythium</i> spp.) (Suppression Only)</p>	<p>0.44 L per hectare</p>	<p>Application instructions: A maximum of one application of Ranman 400SC Agricultural Fungicide per season is allowed, either as a post-plant, pre-emergent application within 3 days after planting or as a soil-directed spray 14 days after planting.</p> <p>Post-plant, pre-emergent application: Apply Ranman 400SC Agricultural Fungicide to the soil as a post-planting/seeding, pre-emergence (before plant emergence) treatment within 3 days after planting/seeding. Apply in sufficient water to obtain full coverage and follow with sprinkler irrigation of 1.25-2.5 cm of water to properly move the product to the root zone.</p> <p>Surface application (broadcast or band): A single application may be made 14 days after planting/seeding. Apply in sufficient water to obtain adequate coverage with the applications directed to the base of the plant. Ranman 400SC Agricultural Fungicide should be incorporated into the soil with 1.25-2.5 centimeters of water. If irrigation is not immediately available after the application, the application should be made in sufficient water to allow penetration into the soil.</p> <p>For banded applications, a 15.2 – 20.3 cm band is recommended (see formula to calculate amount required in the band).</p> <p>Calculate the amount of Ranman 400SC Agricultural Fungicide</p>
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			<p>needed for band treatments by the formula:</p> $\frac{\text{Band width in cm}}{\text{Row spacing in cm}} \times \text{Broadcast rate per hectare}$ <p>= Amount needed per hectare of field</p> <p>Boom height must be 60 cm or less above the crop or ground.</p> <p>DO NOT apply within 30 days of harvest.</p>
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Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification.

DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries, or marine habitats.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Buffer Zones

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, and wetlands), and estuarine/marine habitats.

Method of application	Buffer zone (metres) required for the protection of Aquatic Habitat:	
	Potato and Cucurbits	Carrots
Field sprayer	5	3
Field sprayer (with the use of shrouds)	2	1
Field sprayer (with the use of cones)	4	2

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

FIRST AID

If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

If swallowed, call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to a unconscious person.

If in eyes, 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 centre or doctor for treatment advice.

If inhaled, move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control centre or doctor for treatment advice.

In Case of Emergency: Call 1-888-484-7546.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Treat symptomatically.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

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