



# RANMAN<sup>®</sup>

## 400SC AGRICULTURAL FUNGICIDE

### COMMERCIAL SUSPENSION

READ THE LABEL BEFORE USING

**GUARANTEE:** Cyazofamid 34.5 %

Contains 400 grams of Cyazofamid per litre  
Contains 1,2-benzisothiazolin-3-one at 0.015% as a preservative

**REGISTRATION NO:** 30716 PEST CONTROL PRODUCTS ACT

Net Contents: 500 ml to 200 L

ISK Biosciences Corporation  
7470 Auburn Road  
Suite A  
Concord, Ohio 44077 U.S.A.  
1-877-706-4640

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.

If this product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at [www.croplife.ca](http://www.croplife.ca).

### ENVIRONMENTAL HAZARDS

Toxic to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or 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.

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 Agricultural Fungicide** 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.

### DIRECTION FOR USE: AERIAL APPLICATION – CUCURBITS ONLY

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

**Ranman 400SC Agricultural Fungicide** may be applied by air ONLY if ground equipment cannot be used due to flooded field conditions.

### Use Precautions

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under the conditions of good practice specific to aerial application as outlined in the *National Aerial Pesticide Application Manual*, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

### Operator Precautions

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

### Product Specific Precautions

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at (440) 357-4651 or obtain technical advice from the distributor or your provincial agricultural representative. Application of the specific product must meet and/or conform to the following:

**Volume:** Apply the recommended rate in a minimum spray volume of 50 litres per hectare.

### 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.

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.

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.

Crop	Diseases	Rate/Hectare (Product)	Instructions
Potato	Late blight ( <i>Phytophthora infestans</i> )	0.1 to 0.2 L	<p><b>Resistance Management:</b>  <b>DO NOT</b> apply more than six applications of <b>Ranman 400SC Agricultural Fungicide</b> per crop per year. <b>DO NOT</b> make sequential applications of <b>Ranman 400SC Agricultural Fungicide</b> or other fungicides in the same group. After one application, alternate <b>Ranman 400SC Agricultural Fungicide</b> with at least one application of fungicide having a different mode of action for control of late blight.</p> <p><b>Application instructions:</b>            For late blight control, make <b>Ranman 400SC Agricultural Fungicide</b> 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 <b>Ranman 400SC Agricultural Fungicide</b> prior to desiccation are made at the maximum rate (0.2 L product/ha) following resistance management practices.</p> <p><b>Ranman 400SC Agricultural Fungicide</b> 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><b>DO NOT</b> apply within 7 days of harvest.</p> <p><b>DO NOT</b> apply by air.</p> <p><b>A plant back interval of 30 days is required.</b></p>

### 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.

Crop	Diseases	Rate/Hectare (Product)	Instructions
<b>Cucurbits Vegetables</b> (Crop Group 9), balsam apple, balsam pear, cantaloupe, chayote fruit, Chinese cucumber, Chinese wax-gourd, citron melon, cucumber, edible gourd, melon, muskmelon, pumpkin, squash, summer squash, watermelon, West Indian gherkin and winter squash).	<b>Downy Mildew</b> ( <i>Pseudoperonospora cubensis</i> )	<b>Ground:</b> 0.15 to 0.2 L in 200 to 600 L of water per hectare <b>Aerial:</b> 0.15 to 0.2 L in a minimum of 50 L water per hectare	<b>Resistance Management:</b> <b>DO NOT</b> apply more than six applications of <b>Ranman 400SC Agricultural Fungicide</b> per crop per year. <b>DO NOT</b> make sequential applications of <b>Ranman 400SC Agricultural Fungicide</b> or other fungicides in the same group. After one application, alternate <b>Ranman 400SC Agricultural Fungicide</b> with at least one application of fungicide having a different mode of action for control of downy mildew. Where <b>Ranman 400SC Agricultural Fungicide</b> 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 <b>Ranman 400SC Agricultural Fungicide</b> . Alternate <b>Ranman 400SC Agricultural Fungicide</b> with fungicides from a different cross-resistance group with satisfactory efficacy against downy mildew. Continue Qil (Group 21) fungicide alternation between successive crops. <b>Application instructions:</b> For late downy mildew control, make <b>Ranman 400SC Agricultural Fungicide</b> 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. <b>Ranman 400SC Agricultural Fungicide</b> 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. <b>DO NOT</b> apply within 1 day of harvest. <b>A plant back interval of 30 days is required.</b>

Crop	Diseases	Rate/Hectare (Product)	Instructions
<b>Carrots</b>	<b>Cavity Spot, Root Dieback/Forking</b> ( <i>Pythium</i> spp.) (Suppression Only)	0.44 L per hectare	<b>Application instructions:</b> A maximum of one application of <b>Ranman 400SC Agricultural Fungicide</b> 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. <b>Post-plant, pre-emergent application:</b> Apply <b>Ranman 400SC Agricultural Fungicide</b> 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. <b>Surface application (broadcast or band):</b> 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. <b>Ranman 400SC Agricultural Fungicide</b> 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. For banded applications, a 15.2 – 20.3 cm band is recommended (see formula to calculate amount required in the band). Calculate the amount of <b>Ranman 400SC Agricultural Fungicide</b> needed for band treatments by the formula: $\frac{\text{band width in cm}}{\text{row spacing in cm}} \times \text{broadcast rate per hectare} = \text{amount needed per hectare of field}$ Boom height must be 60 cm or less above the crop or ground. <b>DO NOT</b> apply by air. <b>DO NOT</b> apply within 30 days of harvest.

<b>Crop</b>	<b>Diseases</b>	<b>Rate/Hectare (Product)</b>	<b>Instructions</b>
Spinach	White rust ( <i>Albugo occidentalis</i> ) Suppression only	0.15 to 0.2 L in 300 to 500 L of water per hectare	<p><b>Resistance Management:</b>  <b>DO NOT</b> apply more than five applications of <b>Ranman 400SC Agricultural Fungicide</b> per crop per year. <b>DO NOT</b> make sequential applications of <b>Ranman 400SC Agricultural Fungicide</b> or other fungicides in the same group. After one application, alternate <b>Ranman 400SC Agricultural Fungicide</b> with at least one application of fungicide having a different mode of action for control of disease. Where <b>Ranman 400SC Agricultural Fungicide</b> 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 <b>Ranman 400SC Agricultural Fungicide</b>. Alternate <b>Ranman 400SC Agricultural Fungicide</b> with fungicides from a different cross-resistance group with satisfactory efficacy against white rust. Continue Qil (Group 21) fungicide alternation between successive crops.</p> <p><b>Application instructions:</b>  For white rust suppression, make <b>Ranman 400SC Agricultural Fungicide</b> applications on a 7 - day schedule beginning when disease is first seen or when conditions favour disease development. Use the low rate for preventative applications or very low disease pressure; use high rate as disease pressure increases.</p> <p><b>Ranman 400SC Agricultural Fungicide</b> should be tank-mixed with a non-ionic or organosilicone surfactant (such as Sylgard 309) at 0.15 L/ha. Spray volume to be used will vary with the amount of plant growth and will range from 300 to 500 litres per hectare.</p> <p><b>DO NOT</b> apply within 1 day of harvest.</p> <p><b>DO NOT</b> apply by air.</p> <p><b>A plant back interval of 30 days is required.</b></p>

<b>Crop</b>	<b>Diseases</b>	<b>Rate/Hectare (Product)</b>	<b>Instructions</b>
Basil (Field and Greenhouse)	Downy mildew ( <i>Peronospora belbahrii</i> )	0.20 – 0.22 L per hectare	<p><b>Resistance Management:</b>  <b>DO NOT</b> apply more than four applications of <b>Ranman 400SC Agricultural Fungicide</b> per crop per year. <b>DO NOT</b> make sequential applications of <b>Ranman 400SC Agricultural Fungicide</b> or other fungicides in the same group. After one application, alternate <b>Ranman 400SC Agricultural Fungicide</b> with at least one application of fungicide having a different mode of action for control of downy mildew.</p> <p>Where <b>Ranman 400SC Agricultural Fungicide</b> 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 <b>Ranman 400SC Agricultural Fungicide</b>. Alternate <b>Ranman 400SC Agricultural Fungicide</b> with fungicides from a different cross-resistance group with satisfactory efficacy against downy mildew. Continue Qil (Group 21) fungicide alternation between successive crops.</p> <p><b>Application instructions:</b>  Apply as a foliar broadcast.</p> <p><b>DO NOT</b> apply by air.</p> <p>The Pre-Harvest Interval (PHI) for this crop is 0-day.</p> <p>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><b>Ranman 400SC Agricultural Fungicide</b> should be tank-mixed with a non-ionic or organosilicone surfactant (such as Sylgard 309) at 0.15 L/ha. Spray volume to be used will vary with the amount of plant growth and will range from 200 to 600 litres per hectare.</p>

<b>Crop</b>	<b>Diseases</b>	<b>Rate/Hectare (Product)</b>	<b>Instructions</b>
Greenhouse tomato, pepper, cucumber, brassica and lettuce transplants for field production	Pythium Damping-off and root rot <i>Pythium spp.</i>	30 ml/100 L water	<p>Make a single application of the fungicide solution at the rate of 30 ml <b>Ranman 400SC Agricultural Fungicide</b> per 100 L of water as a soil drench to thoroughly wet the growing medium immediately after seeding.</p> <p>Do not use any surfactant with this drench application.</p> <p><b>DO NOT</b> apply within 60 days of harvest for tomato, pepper, cucumber, and brassicas.</p> <p><b>DO NOT</b> apply within 40 days of harvest for lettuce.</p>

Crop	Diseases	Rate/Hectare (Product)	Instructions
Beans (Snap & Lima)	<p><b>Downy mildew</b> (<i>Phytophthora phaseoli</i>)</p> <p><b>Cottony leak</b> (<i>Pythium aphanidermatum</i>)</p> <p><b>Phytophthora blight</b> (<i>Phytophthora capsici</i>) <b>suppression</b></p>	0.20 L per hectare	<p><b>Resistance Management:</b>  <b>DO NOT</b> apply more than six applications of <b>Ranman 400SC Agricultural Fungicide</b> per crop per year. <b>DO NOT</b> make sequential applications of <b>Ranman 400SC Agricultural Fungicide</b> or other fungicides in the same group.</p> <p>Where <b>Ranman 400SC Agricultural Fungicide</b> 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 <b>Ranman 400SC Agricultural Fungicide</b> with fungicides from a group with a different mode of action and satisfactory efficacy. Continue Group 21 fungicide alternation between successive crops.</p> <p><b>Application instructions:</b>  Apply as a foliar broadcast.</p> <p><b>DO NOT</b> apply by air.</p> <p><b>For control of downy mildew on lima beans</b> 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 long interval as disease preventative sprays or when disease conditions are low. Increase to the shortest interval under moderate to heavy disease pressure. After one application, alternate <b>Ranman 400SC Agricultural Fungicide</b> with at least one application of fungicide having a different mode of action for control of downy mildew.</p> <p><b>For control of cottony leak on lima beans and snap beans</b> make the initial application at full bloom (1st pods) and repeat on a 7 to 14-day schedule. Use the long interval as disease preventative sprays or when disease conditions are low. Increase to the shortest interval under moderate to heavy disease pressure. <b>DO NOT</b> make sequential applications of <b>Ranman 400SC Agricultural Fungicide</b> or other fungicides in the same group. When spraying for cottony leak, limit the number of <b>Ranman 400SC Agricultural Fungicide</b> applications to one if no product effective against cottony leak with a different mode of action is available.</p> <p><b>For suppression of Phytophthora blight on lima beans and snap beans</b> 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. <b>DO NOT</b> make sequential applications of <b>Ranman 400SC Agricultural Fungicide</b> or other fungicides in the same group. When spraying for Phytophthora blight, limit the number of <b>Ranman 400SC Agricultural Fungicide</b> applications to one if no product effective against Phytophthora blight with a different mode of action is available.</p> <p><b>Ranman 400SC Agricultural Fungicide</b> 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>The Pre-Harvest Interval (PHI) for this crop 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	Rate/Hectare (Product)	Instructions
Lettuce (Leaf & Head)	<b>Downy mildew</b> ( <i>Bremia lactucae</i> ) <b>suppression</b>	0.20 L per hectare	<p><b>Resistance Management:</b>  <b>DO NOT</b> apply more than six applications of <b>Ranman 400SC Agricultural Fungicide</b> per crop per year. <b>DO NOT</b> make sequential applications of <b>Ranman 400SC Agricultural Fungicide</b> or other fungicides in the same group. After one application, alternate <b>Ranman 400SC Agricultural Fungicide</b> with at least one application of fungicide having a different mode of action for control of downy mildew.</p> <p>Where <b>Ranman 400SC Agricultural Fungicide</b> 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 <b>Ranman 400SC Agricultural Fungicide</b> with fungicides from a different cross-resistance group with satisfactory efficacy against downy mildew. Continue Qil (Group 21) fungicide alternation between successive crops.</p> <p><b>Application instructions:</b>  Apply as a foliar broadcast or spray directed to the base of the plant.</p> <p><b>DO NOT</b> apply by air.</p> <p>Make the first <b>Ranman 400SC Agricultural Fungicide</b> application after seeding or once the lettuce transplants are set in the field. Subsequent applications should be initiated when weather conditions are favourable for downy mildew development or when disease first appears in the field. All subsequent applications on a 7-14 day schedule, using the shorter interval when disease pressure is moderate to severe.</p> <p><b>Ranman 400SC Agricultural Fungicide</b> 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>The Pre-Harvest Interval (PHI) for this crop 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	Rate/Hectare (Product)	Instructions
Field Tomato	Late blight ( <i>Phytophthora infestans</i> )	0.1 to 0.2 L in 200 to 600 L of water per hectare	<p><b>Resistance Management:</b>  <b>DO NOT</b> apply more than five applications of <b>Ranman 400SC Agricultural Fungicide</b> per crop per year. <b>DO NOT</b> make sequential applications of <b>Ranman 400SC Agricultural Fungicide</b> or other fungicides in the same group. After one application, alternate <b>Ranman 400SC Agricultural Fungicide</b> with at least one application of fungicide having a different mode of action for control of late blight.</p> <p>Where <b>Ranman 400SC Agricultural Fungicide</b> 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 <b>Ranman 400SC Agricultural Fungicide</b>. Alternate <b>Ranman 400SC Agricultural Fungicide</b> with fungicides from a different cross-resistance group with satisfactory efficacy against late blight. Continue Qil (Group 21) fungicide alternation between successive crops.</p> <p><b>Application instructions:</b>  Apply as a foliar broadcast.</p> <p>Make <b>Ranman 400SC Agricultural Fungicide</b> 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><b>Ranman 400SC Agricultural Fungicide</b> should be tank-mixed with a non-ionic or organosilicone surfactant (such as Sylgard 309) at 4:3 ratio (Ranman 400SC: Sylgard 309) or 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>The Pre-Harvest Interval (PHI) for this crop is 1-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	Rate/Hectare (Product)	Instructions
<b>Brassica (Cole) Leafy Vegetables (Crop Group 5)</b> <b>Broccoli</b> ( <i>Brassica oleracea var. botrytis</i> ) <b>Broccoli, Chinese (gai lon)</b> ( <i>Brassica alboglabra</i> ) <b>Broccoli raab (rapini)</b> ( <i>Brassica campestris</i> ) <b>Brussels sprouts</b> ( <i>Brassica oleracea var. gemmifera</i> ) <b>Cabbage</b> ( <i>Brassica oleracea</i> ) <b>Cabbage, Chinese (bok choy)</b> ( <i>Brassica chinensis</i> ) <b>Cabbage, Chinese (napa)</b> ( <i>Brassica pekinensis</i> ) <b>Cabbage, Chinese, mustard (gai choy)</b> ( <i>Brassica campestris</i> ) <b>Cauliflower</b> ( <i>Brassica oleracea var. botrytis</i> ) <b>Cavolo broccolo</b> ( <i>Brassica oleracea var. botrytis</i> ) <b>Collards</b> ( <i>Brassica oleracea var. acephala</i> ) <b>Kale</b> ( <i>Brassica oleracea var. acephala</i> ) <b>Kohlrabi</b> ( <i>Brassica oleracea var. gongylodes</i> ) <b>Mizuna</b> ( <i>Brassica rapa var. japonica</i> ) <b>Mustard greens</b> ( <i>Brassica juncea</i> ) <b>Mustard spinach</b> ( <i>Brassica rapa var. perviridis</i> ) <b>Rape greens</b> ( <i>Brassica napus</i> )	Downy Mildew ( <i>Peronospora parasitica</i> ) (Suppression only)	0.2 L/ha in a minimum of 300-500 litres of water/ha	<p><b>Application instructions:</b>  Make applications on a 7 to 10 day schedule beginning when disease is first seen or when weather conditions are favourable for disease outbreak. Use the longer interval for preventative applications or very low disease pressure and shorten the interval to 7 days as disease pressure increases. <b>DO NOT</b> apply more than 5 applications per crop per year.</p> <p><b>Ranman 400SC Agricultural Fungicide</b> should be tank-mixed with a non-ionic or organosilicone surfactant (such as Sylgard 309) at the rate of 0.15 L/ha.</p> <p><b>Resistance Management:</b>  <b>DO NOT</b> make sequential applications of <b>RANMAN 400SC Agricultural Fungicide</b> or other fungicides in the same group. After one application, alternate <b>RANMAN 400SC Agricultural Fungicide</b> with at least one application of fungicide having a different mode of action for control of downy mildew.</p> <p>The Pre-Harvest Interval (PHI) for this crop is 1 day.</p>

**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. Boom height must be 60 cm or less above the crop or ground.

**Aerial application: DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply when wind speed is greater than 16 km/h at flying height at the site of application. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine/medium/coarse classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan.

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

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

**DO NOT** allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

#### Buffer Zones

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes,

creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop	Buffer Zones (metres) Required for the Protection of:					
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial habitat	
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m		
Field sprayer	Potato, cucurbits, carrot, spinach, lettuce (leaf & head), beans (snap and lima), basil, tomatoes, Brassica vegetables (Crop Group 5)	1	0	1	1	1	
Aerial	Cucurbits	Fixed wing	1	0	1	1	20
		Rotary wing	1	0	1	1	15

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

**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.