

2023-7115
2024-06-11

**RAMPART®
FUNGICIDE**

GROUP	33	FUNGICIDE
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For suppression of downy mildew on brassica leafy vegetables (Crop Group 5), greenhouse cucumber and grapes, for control of late blight and pink rot on stored potatoes, for suppression of pink rot and late blight in potato, for suppression of phytophthora root rot in hazelnut, and for suppression of downy mildew in blackberry, for suppression of diseases caused by *Pythium* spp. and *Phytophthora* spp., and downy mildew on greenhouse crops: cucumber, tomato, pepper, eggplant, basil, lettuce, Chinese cabbage, and strawberry.

**COMMERCIAL
SOLUTION**

**REGISTRATION NO. 30654
PEST CONTROL PRODUCTS ACT**

**READ THE LABEL BEFORE USING
KEEP OUT OF REACH OF CHILDREN**

CAUTION – EYE IRRITANT

ACTIVE INGREDIENT:

Mono- and dipotassium salts of phosphorous acid ... 53.0%

NET CONTENTS: 9.46 L

**LOVELAND PRODUCTS CANADA INC.
789 Donnybrook Drive
Dorchester, Ontario
N0L 1G5**

Product inquiries: 1-800-328-4678

**IN CASE OF EMERGENCY DUE TO A MAJOR SPILL, FIRE OR POISONING
INVOLVING THIS PRODUCT CALL DAY OR NIGHT, 1-800-561-8273**

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.

Causes mild eye irritation. Avoid breathing vapours or spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

Keep unprotected persons out of the treated areas of the greenhouse for the duration of the treatment period.

Allow entry or re-entry to greenhouse only after thorough ventilation and spray mist has cleared and the treated surface has dried.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: Long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and protective eyewear.

Remove contaminated clothing and wash clothing before reuse.

Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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 inversion, application equipment, and sprayer settings.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

ENVIRONMENTAL PRECAUTIONS:

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 when heavy rain is forecast.

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

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 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 SWALLOWED: Call a poison control centre 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 an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control centre or doctor for treatment advice.

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

TOXICOLOGICAL INFORMATION: Treat symptomatically.

RESISTANCE MANAGEMENT RECOMMENDATIONS:

For resistance management, please note that RAMPART Fungicide contains a Group 33 fungicide. Any fungal population may contain individuals naturally resistant to RAMPART Fungicide and other Group 33 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 RAMPART Fungicide or other Group 33 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that is effective on the target pathogen when such use is permitted.
- Fungicide use should be based on an integrated disease management program that includes scouting, historical information related to pesticide use and crop rotation and considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications.
- Monitor treated fungal populations for resistance development. Notify Loveland Products Canada Inc. if reduced sensitivity of the pathogen to RAMPART Fungicide is suspected.
- 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 Technical Service, Loveland Products Canada Inc., 1-800-328-4678 or at www.lovelandproducts.ca.

GENERAL APPLICATION INSTRUCTIONS

For foliar sprays, apply RAMPART Fungicide with sufficient water to ensure adequate coverage of foliage, according to crop and growth stage. To insure good coverage, spray to wet but avoid run-off.

TANK MIXING

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Loveland Products Canada Inc. at 1-800-328-4678 for information before applying any tank mix that is not specifically recommended on this label.

MIXING INSTRUCTIONS

1. Fill the spray tank with 1/2 of the required volume of water.
2. Add RAMPART Fungicide slowly to the tank and agitate by hydraulic or mechanical means.
3. Continue to fill the tank with water to the desired volume while agitating.
4. Continue agitation when applying.

AERIAL APPLICATION PRECAUTIONS

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.

Use Precautions

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under 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.

DIRECTIONS FOR USE

As this product is not registered for the control of pests in aquatic system, 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.

Chemigation: Do not apply this product through any other type of irrigation system. Do not apply when wind speed causes non-uniform distribution and/or favors drift beyond the area intended for treatment. Do not apply by chemigation if the area to be treated is within 100 metres of a residential area or park.

Brassica Leafy Vegetables (broccoli, Chinese broccoli, broccoli raab, Brussels sprouts, cabbage, cauliflower, cavolo broccoli, collard, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens)

For suppression of downy mildew (*Hyaloperonospora parasitica*):

Make foliar applications of RAMPART Fungicide at a rate of 3-7 L in 300-500 L of water per hectare. Begin applications prior to disease development in conjunction with good cultural management practices. Apply at 1-3 week intervals, using the higher rate and shorter interval when disease pressure is severe.

For brassicas with one crop cycle per season, DO NOT make more than eight applications of RAMPART Fungicide per season on a given area.

For brassicas with multiple crop cycles per season, DO NOT make more than three applications of RAMPART Fungicide per crop cycle, with a maximum of 12 applications per season on a given area.

DO NOT apply to plants that are DORMANT or HEAT STRESSED. To avoid undesirable copper phytotoxicity, DO NOT apply RAMPART Fungicide foliarly to plants treated with copper based compounds at less than 20 day intervals. Allow foliage to completely dry after application. DO NOT apply when conditions favour wet tissue for prolonged periods (> 4 hours).

This product may be applied up to 1 day before harvest.

Potatoes

Make application prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. To prevent plant injury, DO NOT exceed the maximum rate or apply more frequently. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. To avoid undesirable copper phytotoxicity, do not apply Rampart Fungicide foliarly to plants treated with copper based compounds at less than 20-day intervals unless instructed to do so by your consultant. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4hours).

Disease	Application method	Rate	Application Program
Suppression of Late blight (<i>Phytophthora infestans</i>) and Suppression of Pink rot (<i>Phytophthora erythroseptica</i>)	Foliar Ground Application	3.0-8.0 L of Rampart Fungicide in 1000L of water per ha (Use a minimum of 300L of water).	Begin applications when conditions are favorable for disease and continue on a 7-day interval. Use the higher rate when disease pressure is moderate to high. Use a maximum of 5 foliar applications per growing season in a preventive program for disease suppression Do not apply Rampart Fungicide at intervals less than 3 days.
	Foliar Aerial Application	3.0-8.0 L of Rampart Fungicide in a minimum of 100L of water per ha.	

Potatoes, Post-Harvest

RAMPART Fungicide controls late blight (*Phytophthora infestans*) and pink rot (*Phytophthora erythroseptica*) on stored potatoes.

A maximum of one application of RAMPART Fungicide per year may be made, either as a single spray or rinse to harvested potato tubers prior to storage or as a single application through the humidification system to potatoes in storage. Apply RAMPART Fungicide as soon as possible after harvest.

Application prior to storage of potato tubers:

Dilute 190 mL of RAMPART Fungicide in 1 litre of water. Apply 2 litres of this solution as a spray or rinse to 1000 kg of harvested potato tubers prior to storage.

Application to stored potatoes:

Dilute 190 mL of RAMPART Fungicide in 1 litre of water. Inject 2 litres of this solution per 1000 kg of stored potato tubers into water used for post-harvest storage.

Greenhouse cucumber

For suppression of downy mildew (*Pseudoperonospora cubensis*):

Make foliar applications of Rampart Fungicide at a rate of 3 – 5 L/ha. Begin applications after plants become established. Apply at 2 – 4 week intervals, using the higher rate and shorter interval when disease pressure is severe. The suggested water volume is 1000 L/ha when cucumber plants are medium sized.

DO NOT make more than six applications per crop cycle in the greenhouse.

Greenhouse Crops: Cucumber, Tomato, Pepper, Eggplant, Basil, Lettuce, and Chinese Cabbage Make application prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. To prevent plant injury, DO NOT exceed the maximum rate or apply more frequently. Do not apply to plants that are dormant or heat or moisture stressed. To avoid undesirable copper phytotoxicity, do not apply Rampart Fungicide foliarly to plants treated with copper based compounds at less than 20-day intervals unless instructed to do so by your consultant. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4hours). Pre Harvest Interval (PHI) 0 days.

Greenhouse Cucumber

Disease	Application method	Rate	Application Program
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Suppression of pythium root rot and fruit rot (<i>Pythium</i> spp.)	Foliar	3.-8.0 L of Rampart Fungicide in 1000L of water per ha	<u>Foliar</u> : apply lower rate at 2 to 4 week intervals after plants become established until control is reached.
Suppression of phytophthora blight (<i>Phytophthora capsici</i>)	Drench	Drench: 5.0 to 7.0 L in at least 1000L	Drench: Apply with normal irrigation schedule.
Suppression of foliar blight, root rot, and fruit rot (<i>Phytophthora</i> spp.)			

Greenhouse Lettuce

Disease	Application method	Rate	Application Program
Suppression of pythium root rot (<i>Pythium</i> spp.)	Foliar	3.-8.0 L of Rampart Fungicide in 1000L of water per ha	<u>Foliar</u> : apply lower rate at 2 to 4 week intervals after plants become established until control is reached.
Suppression of downy mildew (<i>Bremia lactucae</i>) – Foliar only	Drench	Drench: 5.0 to 7.0 L in at least 1000L	Drench: Apply with normal irrigation schedule.

Greenhouse Chinese cabbage

Disease	Application method	Rate	Application Program
Suppression of pythium root rot (<i>Pythium</i> spp.)	Foliar	3.-8.0 L of Rampart Fungicide in 1000L of water per ha	<u>Foliar</u> : apply lower rate at 2 to 4 week intervals after plants become established until control is reached.
Suppression of downy mildew (<i>Hyaloperonospora parasitica</i>) – Foliar only	Drench	Drench: 5.0 to 7.0 L in at least 1000L	Drench: Apply with normal irrigation schedule.

Greenhouse basil

Disease	Application method	Rate	Application Program
Suppression of pythium root rot (<i>Pythium</i> spp.)	Foliar	3.-8.0 L of Rampart Fungicide in 1000L of water per ha	<u>Foliar</u> : apply lower rate at 2 to 4 week intervals after plants become established until control is reached.
Suppression of downy mildew (<i>Peronospora belbahrii</i>) – Foliar only	Drench	Drench: 5.0 to 7.0 L in at least 1000L	Drench: Apply with normal irrigation schedule.

Greenhouse tomato, pepper, and eggplant

Disease	Application method	Rate	Application Program
Suppression of pythium root rot and fruit rot (<i>Pythium</i> spp.)	Foliar	3.-8.0 L of Rampart Fungicide in 1000L of water per ha	<u>Foliar</u> : apply lower rate at 2 to 4 week intervals after plants become established until control is reached.
Suppression of phytophthora blight (<i>Phytophthora capsici</i>)	Drench	Drench: 5.0 to 7.0 L in at least 1000L	Drench: Apply with normal irrigation schedule.
Suppression of foliar blight and root rot (<i>Phytophthora</i> spp.)			

Greenhouse Strawberry

Make application prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. To prevent plant injury, DO NOT exceed the maximum rate or apply more frequently. Do not apply to plants that are dormant or heat or moisture stressed. To avoid undesirable copper phytotoxicity, do not apply Rampart Fungicide foliarly to plants treated with copper based compounds at less than 20-day intervals unless instructed to do so by your consultant. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4hours). Pre Harvest Interval (PHI) 0 days.

Disease	Application method	Rate	Application Program
Suppression of pythium root rot and fruit rot (<i>Pythium</i> spp.)	Foliar	3.-8.0 L of Rampart Fungicide in 1000L of water per ha	<u>Foliar</u> : apply lower rate at 2 to 4 week intervals after plants become established until control is reached.
Suppression of leather rot (<i>P. cactorum</i>)	Drench	Drench: 5.0 to 7.0 L in at least 1000L	Drench: Apply with normal irrigation schedule.
Suppression of crown and root rot (<i>Phytophthora</i> spp.)			

Blackberry

Make application prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. To prevent plant injury, DO NOT exceed the maximum rate or apply more frequently. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. To avoid undesirable copper phytotoxicity, do not apply Rampart Fungicide foliarly to plants treated with copper based compounds at less than 20-day intervals unless instructed to do so by your consultant. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4hours).

Blackberry

Disease	Application method	Rate	Application Program
Suppression of Downy mildew (<i>Peronospora sparsa</i>)	Foliar Ground Application	3.0-8.0 L of Rampart Fungicide in 1000L of water per ha	Begin applications when conditions are favourable for disease and continue on a 7-day interval. Use the higher rate when disease pressure is moderate to high. Use a maximum of 5 foliar applications per growing season in a preventive program for disease suppression.

			Do not apply Rampart Fungicide at intervals less than 3 days.
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Grapes

For suppression of downy mildew (*Plasmopara viticola*):

Make foliar applications of RAMPART Fungicide at a rate of 2.5-5 L/ha. Apply at 1-3 week intervals, using the higher rate and shorter interval when disease pressure is severe. The suggested water volume is 500 L/ha when the plants are first starting to grow and 1000 L/ha when leaves, vines and fruit increase the surface area of the plant.

DO NOT make more than five applications of RAMPART Fungicide per season on a given area.

DO NOT apply to plants that are DORMANT or HEAT STRESSED. To avoid undesirable copper phytotoxicity, DO NOT apply RAMPART Fungicide foliarly to plants treated with copper based compounds at less than 20 day intervals. Allow foliage to completely dry after application. DO NOT apply when conditions favour wet tissue for prolonged periods (> 4 hours).

This product may be applied up to 1 day before harvest.

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Loveland Products Canada Inc. under the User Requested Minor Use Label Expansion program. For these uses, Loveland Products Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.				
Crop	Disease	Application method	Rate	Application Program
Hazelnut	Suppression of phytophthora root rot (<i>Phytophthora</i>	Foliar spray, Drench	3.0-6.0 L product/ha	For preventative suppression of phytophthora root rot, begin foliar, drench or drip

	spp.)	application, Drip irrigation	irrigation applications when conditions are favourable for disease (i.e. wet conditions or at early symptoms of disease). Continue on a 14 day interval up to a maximum of 4 applications per year. For foliar applications, apply Rampart Fungicide in a minimum of 400 L of water per hectare. For drench and drip irrigation applications, apply Rampart Fungicide in a minimum of 1000 L of water per hectare.
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Directions for Chemigation:

Rampart Fungicide may be applied through a drip (trickle) irrigation system that will apply water uniformly. Do not apply this product through any other type of irrigation system. Non-uniform distribution of treated water may reduce effectiveness or result in illegal pesticide residues on the crop. Proper calibration of the chemigation system is essential to deliver the desired rate per hectare in a uniform manner and to minimize wash-off time. If you have questions about calibration, contact the equipment manufacturer or other expert.

Equipment Requirements:

- The system must contain an air gap, or approved backflow prevention device, or approved functional check valve, vacuum relief valve (including inspection port), and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow unless the water is from a man-made self-contained source on private land.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve or one-way valve to prevent the flow of fluid back toward the injection pump. A secondary containment system around the injection port area must be in place.
- The pesticide injection pipeline must also contain a functional, normally closed, valve located on the intake side of the injection system to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection when the water pressure drops, or water flow stops. Alternatively, in the absence of such an automatic system, the injection procedure

- must be continuously monitored by an operator who is able to manually shut off pesticide injection under the same circumstances.
- Systems must use a metering device, such as a positive displacement injection pump (or flow meter on eductor) effectively designed and compatible with pesticides and capable of being fitted with a system interlock.
 - The tank holding the pesticide mixture should be free of rust, fertilizer, sediment, and foreign material, and equipped with an in-line strainer situated between the tank and the injection point.
 - To insure uniform mixing of the fungicide in the water line, inject the mixture in the center of the pipe diameter or just ahead of an elbow or tee in the irrigation line so the turbulence created at those points will assist in mixing. The injection point must be located after all back-flow prevention devices on the water line unless the water is from a man-made self-contained source on private land.

Precautions for Chemigation:

- DO NOT connect an irrigation system used for pesticide application to a public water system unless the required safety devices for public water systems are in place. Specific local regulations may apply and must be followed.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall operate the system and shall shut the system down to make necessary adjustments should the need arise. Irrigation systems intended for chemigation applications must be properly designed, equipped, and maintained.

STORAGE

To prevent contamination, store this product away from food or feed.

DISPOSAL:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions 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 the 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.

RAMPART® is a registered trademark of Loveland Products, Inc.