

GROUP	3	FUNGICIDE
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CARAMBA® Fungicide

LIQUID

Broad spectrum fungicide for use in cereals, soybeans and sugar beets

COMMERCIAL (AGRICULTURAL)

GUARANTEE: Metconazole 90 g/L

REGISTRATION NO. 29767

PEST CONTROL PRODUCTS ACT

WARNING – EYE IRRITANT

READ THE LABEL AND ATTACHED BROCHURE BEFORE USING

KEEP OUT OF REACH OF CHILDREN

**IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY
INVOLVING THIS PRODUCT, CALL DAY OR NIGHT,
1-800-454-2673**

NET CONTENTS: 0.100 L – 1000 L, 8.1 L, 16.2 L

BASF Canada Inc.
100 Milverton Drive
5th Floor
Mississauga, Ontario
L5R 4H1
1-877-371-2273

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GENERAL INFORMATION

This package contains **CARAMBA Fungicide**, a 90 g/L emulsifiable concentrate. The active ingredient in **CARAMBA Fungicide** belongs to the triazole class of fungicides. The mode of action of metconazole is inhibition of ergosterol biosynthesis.

ENVIRONMENTAL HAZARDS

TOXIC to aquatic organisms, non-target terrestrial plants, and small wild mammals. This product contains petroleum distillates that are also toxic to aquatic organisms.

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 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.

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e. g. sandy soil) and/or the depth to the water table is shallow.

DIRECTIONS FOR USE (See specific sections for each crop group)

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.

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) medium 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.

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	
Field sprayer*	Wheat, barley, oats, rye		1	1	0	0
	Soybeans		1	1	0	1
	Sugar beets		2	1	1	1
Aerial	Wheat, barley, oats, rye	Fixed wing	15	1	0	0
		Rotary wing	15	1	0	0
	Soybean	Fixed wing	20	1	0	10
		Rotary wing	15	1	0	10
	Sugar beets	Fixed wing	50	1	1	15
		Rotary wing	40	1	1	15

*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

Apply recommended rates of **CARAMBA Fungicide** as instructed by the following crop application rate tables. Apply **CARAMBA Fungicide** with ground or aerial spray equipment. Equipment should be checked frequently for proper calibration.

Cereals Application Rate Table (Ground and aerial application)

Crop	Disease	Application Rate (L/ha)
Barley	For control of: Net blotch (<i>Pyrenophora teres</i>) Scald (<i>Rhynchosporium secalis</i>) Leaf rust (<i>Puccinia hordei</i>) For suppression of: Spot blotch (<i>Cochliobolus sativus</i>)	0.5 – 0.7
Wheat (all types) Triticale	For control of: Tan spot (<i>Pyrenophora tritici-repentis</i>) Septoria leaf spot (<i>Septoria tritici</i> or <i>S. nodorum</i>) Leaf rust (<i>Puccinia recondita</i>) For suppression of: Spot blotch (<i>Cochliobolus sativus</i>)	
Oats	For control of: Crown rust (<i>Puccinia coronata</i>) Septoria leaf blotch (<i>Septoria avenae</i>)	
Rye	For control of: Leaf Rust (<i>Puccinia recondita</i>)	
Barley, oats, rye, wheat	For suppression of Fusarium head blight (FHB) (<i>Fusarium graminearum</i>) Application of CARAMBA Fungicide at the timing for FHB will also control the above listed leaf diseases when they occur later in the season.	1.0

Crop	Disease	Application Rate (L/ha)
<p>Application Directions</p> <p>Control or Suppression of Leaf Diseases in Cereals For optimal disease control or suppression, apply CARAMBA Fungicide prior to disease development or at the onset of disease symptoms. Use 0.5 – 0.7 L/ha of CARAMBA Fungicide for control or suppression of leaf disease.</p> <p>Apply higher rate if weather conditions are conducive for disease development.</p> <p>Suppression of Fusarium Head Blight in Cereals The risk of fusarium head blight (FHB) in cereals is greater when the weather is warm and wet at head emergence and flowering. The application of CARAMBA Fungicide for suppression of FHB should be considered when these environmental conditions are forecasted.</p> <p>To maximize yield and suppress FHB, apply CARAMBA Fungicide at a rate of 1 L/ha to wheat, oats, and rye when crops are at 20% flowering (GS 61-63) using sprayer nozzles configured to provide excellent coverage of the cereal head. For barley, apply CARAMBA Fungicide at a rate of 1 L/ha between full head emergence to up to 3 days after full emergence of main stem heads. Application of CARAMBA Fungicide will reduce the Fusarium toxin (DON) in harvested grain. Application of CARAMBA Fungicide at the timing for FHB will control or suppress leaf diseases (crown rust, septoria leaf blotch) that occur later in the season. Application at this timing is not intended to provide curative control or suppression of established leaf diseases.</p> <p>DO NOT make more than one (1) application of CARAMBA Fungicide per season.</p>		

Soybeans Application Rate Table (Ground and aerial application)

Crop	Disease	Application Rate (L/ha)
Soybeans	For control of Asian soybean rust (<i>Phakopsora pachyrhizi</i>)	0.70
<p>Application Directions CARAMBA Fungicide can be applied from vegetative through full seed (R6 stage) soybeans. For optimal soybean rust control, make initial application of CARAMBA Fungicide between early flowering and pod set (R1 and R3 growth stage), or prior to rust development. If environmental conditions favor continued rust development or if monitoring shows active rust symptoms, repeat application 10-21 days after the first application. Use the shorter interval when rust pressure is high.</p> <p>DO NOT add an adjuvant or surfactant.</p> <p>ADVERSE EFFECTS: CARAMBA Fungicide can cause foliar chlorosis when applied to soybeans that are already highly stressed from drought, heat, and ground compaction.</p> <p>Management of Asian Soybean Rust If Asian soybean rust spores are present in the area, soybeans may be infected even if symptoms are not present. Once Asian soybean rust is established (infection level greater than 3-5%) on the soybean plant, control is difficult to achieve with a curative approach.</p> <p>Resistance Management To limit the potential for development of resistance, DO NOT make more than two (2) applications of CARAMBA Fungicide or other DMI (Group 3) fungicides per season.</p>		

Sugar Beet Application Rate Table (Ground and Aerial Application)

Crop	Disease	Application Rate (L/ha)
Sugar beets	For control of Cercospora leaf spot (<i>Cercospora beticola</i>)	1.0 – 1.25
<p>Application Directions Apply CARAMBA Fungicide at 1.0 – 1.25 L/ha prior to disease development or at the onset of disease to control cercospora leaf spot. Use the higher rate when disease pressure is high. If necessary, reapply on a 14-day schedule to a maximum of two (2) applications.</p> <p>Do not make more than two (2) applications of CARAMBA Fungicide before alternating to a fungicide with a different mode of action.</p>		

Ground Application

Apply **CARAMBA Fungicide** at rates listed in application rate and timing table (crop specific) when conditions are favourable for the development of disease. Use a minimum water volume of 100 L/ha. Ensure thorough coverage of foliage. Consult nozzle manufacturers recommendation for spray pressures for specific nozzles.

Aerial Application

Apply **CARAMBA Fungicide** at rates listed in the application rate and timing tables (crop specific) when conditions are favourable for the development of disease. Use a minimum water volume of 50 L/ha. Ensure thorough coverage of foliage. Consult nozzle manufacturers recommendation for spray pressures for specific nozzles.

Instructions for Aerial Applications

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.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

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 1-877-371-BASF (2273) or obtain technical advice from the distributor or your provincial agricultural representative.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that **CARAMBA Fungicide** contains a Group 3 (metconazole) fungicide. Any fungal population may contain individuals naturally resistant to **CARAMBA Fungicide** and other Group 3 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 **CARAMBA Fungicide** or other Group 3 fungicides with different groups that control the same pathogens. Avoid application of more than 2 consecutive sprays of **CARAMBA Fungicide** or other fungicides in the same group.
- Use tank mixtures with fungicides from a different group when such use is permitted.
- **CARAMBA 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 a BASF representative at 1 (877) 371- 2273 or at www.agsolutions.ca.

MIXING

1. Clean spray tank following sprayer clean-up recommendations on the label of the product applied previously.
2. Fill the spray tank one-half full of water and start agitation.
3. Add the required amount of **CARAMBA Fungicide** to the tank.

4. Continue agitation while filling the remainder of the spray tank .
5. After use, clean the spray tank.

RESTRICTIONS AND LIMITATIONS

1. Do not enter or allow worker entry into treated areas during the restricted entry intervals specified in the following table:

Crop	Restricted entry interval (REI)
Wheat, barley, oats, rye	5 days
Soybeans	4 days
Sugar beets	9 days

2. Crop preharvest interval and application limitation:

Crop	Application to harvest interval (days)	Maximum number of applications per year	Maximum number of sequential applications
Barley Oats Rye Wheat	30	1	1
Soybeans	30	2	2
Sugar beets	14	2	2

3. All crops can be grazed or fed to livestock.
4. Rotational Crops: A plant back interval of 35 days is required for all crops not listed on the label.

PRECAUTIONS

1. **KEEP OUT OF REACH OF CHILDREN.**
2. Harmful if swallowed. Do not take internally.
3. Causes eye irritation. DO NOT get in eyes.

4. Avoid contact with skin and clothing.
5. Wash thoroughly after handling and before eating, drinking or smoking.
6. **All mixer/loaders and applicators (except aerial applicators):** Wear coveralls over long sleeved shirt, long pants, chemical resistant gloves, socks and footwear during mixing/loading, application, clean-up and repair. In addition wear goggles/face shield during mixing/loading. Gloves are not required during application.

Aerial applicators: Wear long sleeved shirt, long pants, socks and footwear during application.

When handling more than 164 L of **CARAMBA Fungicide** per day, use closed mixing/loading systems.

Use closed cab tractor for ground boom application. A closed cab is a chemical resistant barrier that completely surrounds the occupant of the cab and prevents contact with the pesticide or treated surfaces outside the cab.

7. If clothing becomes contaminated, remove and wash separately from household laundry before reuse.
8. Clean spray equipment thoroughly after use.
9. 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 inversions, application equipment and sprayer settings.
10. If this pest control 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.

FIRST AID

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

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 inhaled: 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 centre or doctor for further 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.

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

TOXICOLOGICAL INFORMATION

This product contains a petroleum distillate. Vomiting may cause aspiration pneumonia. Treat symptomatically.

STORAGE

1. Store in original tightly closed container. Protect from freezing.
2. Do not ship or store near food, feed, seed and fertilizers.
3. Store in cool, dry, locked, well-ventilated area without floor drain.

DISPOSAL

For Recyclable Containers

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for any further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

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.

For Non-Returnable Containers

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For Returnable-Refillable Containers

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

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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