Booklet						
	GROUP 11 M <sup>2</sup> FUNGICIDE					
FUNGICIDE						
BROAD SPECTRUM FUNGICIDE FOR FOLIAR USE ON POTATOES ONLY						
WATER DISPERSIBLE GRANULAR						
COMMERCIAL (AGRICULTURAL)						
ACTIVE INGREDIENTS: Pyraclostrobin						
Warning, contains the allergen soy						
REGISTRATION NO. 33497 PE	ST CONTROL PRODUCTS ACT					
	POISON					
EYE AND SKIN 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						
<b>NET CONTENTS:</b> 7.56 kg (27 PVA bags per pouch; 0	0.28 kg per PVA bags)					

BASF Canada Inc. 5025 Creekbank Road Building A, 2<sup>nd</sup> Floor Mississauga, Ontario L4W 0B6

1-877-371-2273

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## **GENERAL INFORMATION**

This package contains **CABRIO PLUS WSP**, a 60% Water Dispersible Granular. The active ingredients in **CABRIO PLUS WSP** include pyraclostrobin and metiram. Together these ingredients provide both translaminar and contact control with ingredients belonging to different classes of fungicide (group 11 and group M<sup>2</sup>).

**CABRIO PLUS WSP** has a protective effect because it inhibits spore, mycelial growth and sporulation of the fungus on the leaf surface and inside the plant. Optimum disease control is achieved when **CABRIO PLUS WSP**, is applied in a regularly scheduled protective spray program and is used in a rotation program with other fungicides.

## PRECAUTIONS

## 1. **KEEP OUT OF REACH OF CHILDREN.**

- 2. Harmful or fatal if swallowed. May irritate eyes. Potential skin sensitizer. Causes skin irritation. **DO NOT** get in eyes or on skin or clothing.
- 3. Wash thoroughly after handling and before eating, drinking or smoking.
- 4. Wear coveralls over long pants and long-sleeved shirts and chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up, and repair. Gloves are not required during application within a closed cab or cockpit. Aerial applicators must wear long pants and long-sleeved shirts.

During open-cab ground boom application, applicators must wear either a respirator with a NIOSH approved organic-vapour-removing cartridge with a pre-filter approved for pesticides OR a NIOSH approved canister approved for pesticides OR use a closed-cab tractor that provides respiratory protection (such as dust/mist filtering system and/or vapour/gas purification system) for ground boom application.

- 5. If clothing becomes contaminated, remove and wash separately from household laundry before reuse.
- 6. Clean spray equipment thoroughly after use.
- 7. Apply only when the potential for drift to non-target areas of human habitation or 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.
- 8. This product contains an active ingredient which are toxic to aquatic organisms. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

- 9. DO NOT enter treated areas during the restricted-entry intervals of 30 days after treatment for hand-set irrigation; 5 days after treatment for roguing, and 12 hours after treatment for all other activities.
- 10. Custom applicators must use ground boom equipment with an enclosed cab. 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.
- 11. PVA bags are water soluble and will dissolve in water. After opening the outer package, drop the required number of unopened pouches into the spray tank as directed. Avoid handling the water soluble bag as this may cause breakage. Do not allow bags to become wet prior to adding to the spray tank. Reseal outer package to protect remaining bags.

# FIRST AID

**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 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

The patient should be treated symptomatically.

## ENVIRONMENTAL HAZARDS

TOXIC to aquatic organisms, non-target terrestrial plants, birds and small wild mammals. Observe buffer zones specified under DIRECTIONS FOR USE.

TOXIC to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.

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.

This product demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of **CABRIO PLUS WSP** in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

# STORAGE

- 1. To prevent contamination, store this product away from food or feed.
- 2. Store in original tightly closed container.
- 3. Do not ship or store near food, feed, seed and fertilizers.
- 4. Store in cool, dry, locked, well-ventilated area without floor drain.

## DISPOSAL

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 further use.

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

If PVA bag breaks, follow provincial instructions for any required additional cleaning of the container prior to its disposal.

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.

## DIRECTIONS FOR USE

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

A maximum of 3 applications per year is allowed on potatoes at a maximum application rate of 1.40 kg a.i./ha with 7-day application intervals and a 14-day pre-harvest interval using aerial or ground spray only.

The total seasonal application of mancozeb and metiram combined cannot exceed 10 applications per year with no more than 3 applications being metiram.

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.

Сгор	Disease	Spray Interval	Application Rate (kg/ha)
Potato	Early blight	7 - 14 days	2.25 - 2.53
	(Alternaria solani)		(8 or 9 PVA bags)
	Late blight	7 - 10 days	2.25 - 2.53
	(Phytophthora infestans)		(8 or 9 PVA bags)

## Potato Application Rate Table (Ground and Aerial Application)

Applications of **CABRIO PLUS WSP** for the control of early blight (*Alternaria solani*) and late blight (*Phytophthora infestans*) should begin prior to row closure or when conditions become favourable for the development of disease (whichever comes first). For early blight use 2.25 to 2.53 kg/ha and apply on a 7-14 day interval. For late blight use 2.25 to 2.53 kg/ha and apply on a 7-10 day interval.

In order to reduce the selection of less sensitive strains of the target fungi, for early and late blight control it is recommended that no more than one (1) application of **CABRIO PLUS WSP** be made before alternating to an effective fungicide with a different mode of action from Group 11 Fungicides for at least one application.

No more than three (3) applications of **CABRIO PLUS WSP** should be made per season.

## Ground Application

Apply **CABRIO PLUS WSP** at rates listed in the application rate and timing when conditions are favourable for the development of disease. Use a minimum water volume of 200 L/ha on

potatoes. Ensure thorough coverage of foliage. Consult nozzle manufacturers recommendation for spray pressures for specific nozzles.

#### 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 S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

## Aerial Application

Apply **CABRIO PLUS WSP** at rates listed in the application rate and timing table 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.

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 S572.1) medium classification. Reduce drift caused by turbulent wingtip vortices. The nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

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 nontarget areas. Specified buffer zones should be observed.

#### **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 coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear 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.

#### Additives

Do not use additives or adjuvants unless otherwise specified.

## **Buffer Zones**

Spot treatments using hand-held equipment DO NOT require a buffer zone.

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.

	Buffer Z	uffer Zones (metres) Required for the Protection of:					
Method of	d of Crop Les that		Freshwater Habitat of Depths:		Estuarine/Marine Habitat of Depths:		Terrestrial
Application			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	Habitat
Field sprayer	Potato		5	3	2	1	1
Aerial	Potato	Fixed wing	450	60	40	15	55
		Rotary wing	225	45	30	10	45

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.

The buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

## **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

#### Mode of Action

Pyraclostrobin, one of the active ingredients of **CABRIO PLUS WSP**, belongs to the group of respiration inhibitors classified by the PMRA as Quinone Outside Inhibitors (QoI), or Target Site of Action Group 11 Fungicides. Metiram, the other active ingredient of **CABRIO PLUS WSP**, is classified by the PMRA as a Target Site of Action Group M<sup>2</sup> Fungicides.

#### Resistance management

**CABRIO PLUS WSP** contains pyraclostrobin, a Group 11 fungicide, and is effective against pathogens resistant to fungicides with modes of action different from those of QoI fungicides (Target site Group 11), such as for example dicarboximides, sterol inhibitors, benzimidazoles, or phenylamides. Fungal isolates with acquired resistance to Group 11 fungicides, such as pyraclostrobin, azoxystrobin and fenamidone may eventually dominate the fungal population if Group 11 fungicides are used predominantly and repeatedly in the same field in successive years as the primary method of control for the targeted pathogen species. This may result in reduction of disease control by **CABRIO PLUS WSP** or other Group 11 fungicides.

**CABRIO PLUS WSP** contains metiram a Group M<sup>2</sup> fungicide. Any fungal population may contain individuals naturally resistant to **CABRIO PLUS WSP** and other Group M<sup>2</sup> 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.

The following recommendations may be considered to delay the development of fungicide resistance:

- Applications: Adhere to the label instructions regarding the consecutive use of CABRIO PLUS WSP or other target site of action fungicides that have a similar site of action on the same pathogens. To maintain the performance of CABRIO PLUS WSP in the field, do not exceed the total number of sequential applications and the total number of applications of CABRIO PLUS WSP per season as stated below in the Restrictions and Limitations table.
- 2. IPM: CABRIO PLUS WSP should be integrated into an overall disease and pest management program. Cultural practices known to reduce disease development should be followed. Consult your local extension specialist, certified crop advisor and/or BASF for additional IPM strategies established for your area. CABRIO PLUS WSP may be used in Agricultural Extension advisory (disease forecasting) programs, which recommend application timing based on environmental factors favourable for disease development.
- 3. **Monitor:** Monitor efficacy of all fungicides used in the disease management program against the targeted pathogen and record other factors that may influence fungicide performance and/or disease development.
- 4. **Reporting:** If a target site fungicide, such as **CABRIO PLUS WSP**, appears to be less or no longer effective against a pathogen that it previously controlled or suppressed, contact a BASF-representative at 1-877-371-2273 or at www.agsolutions.ca, local extension specialist, or certified crop advisor to assist in determining the cause of reduced performance.

# 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 **CABRIO PLUS WSP** to the tank.
- 4. Continue agitation while filling the remainder of the spray tank with water.
- 5. After use, clean the spray tank.

# **RESTRICTIONS AND LIMITATIONS**

- 1. **Crop Rotation Restrictions:** Crops listed on the **CABRIO PLUS WSP** label may be planted immediately following the last application. All other crops can be planted 14 days after last application.
- 2. Crop preharvest interval and application limitation:

Сгор	Application	Maximum number	Maximum number
	to harvest interval	of applications	of sequential
	(days)	per year	applications
Potatoes	14	3	1

3. Crops can be grazed or fed to livestock.

PVA Bag

## **CABRIO® PLUS WSP**

## FUNGICIDE

Net content: 0.28 kg

ACTIVE INGREDIENTS: Pyraclostrobin .......5% Metiram .......55%

Warning, contains the allergen soy

**REGISTRATION NO. 33497** 

PEST CONTROL PRODUCTS ACT

POISON



WARNING

**EYE AND SKIN IRRITANT** 

**KEEP OUT OF REACH OF CHILDREN**