

Booklet

GROUP	3	4	11	FUNGICIDE
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INSURE® CEREAL
Fungicide Seed Treatment

SUSPENSION

For seed treatment use in barley, oat, rye, triticale and wheat (all types)

COMMERCIAL (AGRICULTURAL)

ACTIVE INGREDIENTS:

Pyraclostrobin..... 17 g/L
Triticonazole 17 g/L
Metalaxyl 10 g/L

Contains 1,2-benzisothiazolin-3-one at 0.005% and 2-methyl-4-isothiazolin-3-one at 0.005%, as preservatives

OR

Contains 1,2-benzisothiazolin-3-one at 0.0085% and 2-methyl-4-isothiazolin-3-one at 0.0085%, as preservatives

OR

Contains 1,2-benzisothiazolin-3-one at 0.017%, 2-methyl-4-isothiazolin-3-one at 0.0095%, 2-bromo-2-nitropropane-1,3-diol at 0.024%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0011%, as preservatives

Warning, contains the allergen soy

POTENTIAL SKIN SENSITIZER

No open transfer is permitted for commercial seed treatment of barley, wheat, oats, rye and triticale.

REGISTRATION NO. 30685

PEST CONTROL PRODUCTS ACT

READ THE LABEL 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: 0.1 L - Bulk

BASF Canada Inc.
5025 Creekbank Road
Building A, 2nd Floor
Mississauga, Ontario L4W 0B6
1-877-371-2273

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GENERAL INFORMATION

INSURE CEREAL is a ready-to-use broad spectrum fungicide seed treatment in a water-based formulation that provides preventive seed and seedling protection against seed-, soil-borne and seedling diseases in barley, oat, rye, triticale and wheat (all types). Make all applications according to the use directions in this label.

INSURE CEREAL Seed Treatment Fungicide is active against a wide range of diseases caused by *Fusarium* spp., *Pythium* spp., and *Cochliobolus sativus* and is also active against a wide range of smuts and bunt.

DIRECTIONS FOR USE

For use on farm and on closed transfer commercial seed treatment facilities. Closed transfer includes closed mixing, loading, calibrating and closed treatment equipment.

Apply **INSURE CEREAL** using standard slurry, gravity flow or mist-type seed treatment application equipment. Thorough seed coverage will offer the best protection of the seed from seed-, soil-borne, and seedling diseases. When used at the recommended rate of 300 mL/100 kg seed, no additional dyes or dilutions with water are needed unless recommended by the manufacturer of the seed treatment application equipment/machines. If so, increase the use rate proportionally to the dilution rate (e.g. add 100 mL of water to 300 mL of **INSURE CEREAL**, then apply at 400 mL/100 kg seed). Please consult the seed treatment application equipment manufacturer in question for further directions.

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

CROP SPECIFIC RECOMMENDATIONS FOR SEED TREATMENT

Crop	Target Disease	Product use rate in mL/ 100 kg seed
Barley Oats Rye Triticale Wheat (all types)	<p>Diseases Controlled: Seed Rot / Pre-emergence Damping-off caused by <i>Fusarium</i> spp., <i>Cochliobolus sativus</i>, and <i>Pythium</i> spp. Post-emergence Damping-off caused by <i>Pythium</i> spp. Seedling Blight caused by <i>Fusarium</i> spp. and <i>Pythium</i> spp. Root Rot caused by <i>Fusarium</i> spp. and <i>Pythium</i> spp. Loose Smut (<i>Ustilago tritici</i>) - Rye, Triticale, Wheat Common Bunt (<i>Tilletia tritici</i>, <i>T. lavies</i>) - Rye, Triticale, Wheat True Loose Smut (<i>Ustilago nuda</i>) - Barley Covered Smut (<i>Ustilago hordei</i>) - Barley False Loose Smut (<i>Ustilago nigra</i>) - Barley Loose Smut (<i>Ustilago avenae</i>) - Oat Covered Smut (<i>Ustilago kollerii</i>) - Oat</p> <p>Diseases Suppressed: Seedling blight caused by <i>Cochliobolus sativus</i> Root rot caused by <i>Cochliobolus sativus</i></p>	300

USE RESTRICTIONS

- Do not use treated seed for food, feed or oil processing.
- Do not store **INSURE CEREAL** near feed or foodstuffs.
- Do not contaminate feed or foodstuffs.
- Do not apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.
- Do not contaminate irrigation or drinking water or aquatic habitats by cleaning of equipment or disposal of wastes.
- **INSURE CEREAL** contains sufficient pigment to conspicuously color and coat treated seed. Regulations pertaining to the coloration of treated seed enforced under the "Seeds Act" must be strictly adhered to when using this product.
- Thoroughly clean auger after handling treated seed before using same auger for handling commercial or feed grains.

SEED LABELLING

TREATED SEED MUST BE LABELLED AS FOLLOWS:

"This seed has been treated with **INSURE CEREAL** containing fungicides pyraclostrobin, triticonazole and metalaxyl. Workers handling or planting treated seed must wear long-sleeved shirt, long pants, chemical-resistant gloves, shoes and socks, and respiratory protection (i.e. NIOSH/MSHA/BHSE approved respirator or fresh air hood). Respiratory protection is not required when workers are in a closed cab tractor. 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. DO NOT use for food, feed or oil processing. Store away from feed and food stuff.

Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface."

SEED STORAGE

Treatment of highly mechanically damaged seed, seed known to be of low vigour and poor quality, or seed where the storage conditions were poor (high humidity in storage, moisture within grain storage facility, or grain sitting on the ground) may result in reduced germination and/or reduction of seed and seedling vigour. Treat and conduct germination tests on a small test sample of seed before treating commercial quantities with **INSURE CEREAL**. Due to seed quality and seed storage conditions beyond the control of BASF Canada, BASF Canada makes no claims or guarantees as to germination of carry-over seed treated with **INSURE CEREAL**.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

Mode of Action

INSURE CEREAL contains three active ingredients with distinct modes of action. Pyraclostrobin is classified as a **Target Site of Action Group 11** fungicide. Triticonazole is classified as a **Target Site of Action Group 3** fungicide. Metalaxyl is classified as a **Target Site of Action Group 4** fungicide. Due to the minimal amounts of **INSURE CEREAL** applied to the seed that relocate to the upper parts of the plant and the multiple modes of action, the potential for development of resistance is low.

Resistance Management

INSURE CEREAL contains three active ingredients with three distinct modes of action. Any fungal population may contain individuals naturally resistant to **INSURE CEREAL**, and other Group 3, 4 and 11 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:

1. **Applications:** Adhere to label instructions for each product regarding the consecutive use of **INSURE CEREAL** or other target site of action Group 3, 4 and/or 11 fungicides that have a similar site of action on the same pathogens.
2. **IPM: INSURE CEREAL** 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. **INSURE CEREAL** 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 Group 3, 4 and/or 11 target site fungicide, such as **INSURE CEREAL**, 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.

ENVIRONMENTAL HAZARDS

Ensure proper soil incorporation of the seeds. **DO NOT** feed treated seed to, or otherwise expose, wildlife or domestic birds. If treated seed is spilled outdoors or in areas accessible to birds, promptly clean up or bury to prevent ingestion. Ensure proper disposal of any surplus treated seed not intended for later planting. **DO NOT** contaminate domestic or irrigation water supplies, lakes, streams, ponds or any body of water with the chemical, used containers, treated seed or bags, which have held treated seed. **DO NOT** contaminate water by cleaning of equipment or

disposal of wastes. Unused or leftover treated seed should not be stored where there is a chance of it becoming mixed with untreated seed. Toxic to aquatic organisms.

The use of this product may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) or the water table is shallow. To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. compacted or fine-textured soils such as clay).

Avoid application of this product when heavy rain is forecast.

PRECAUTIONS

- 1. KEEP OUT OF REACH OF CHILDREN.**
2. DO NOT apply in a way that this product will contact workers or other persons, either directly or through drift. Only handlers (mixers, loaders and applicators) wearing personal protective equipment may be in the area when seed is being treated or bagged.
3. Workers mixing, loading, treating, cleaning-up, or maintaining and repairing seed treatment equipment, bagging, sewing, stacking, involved in handling treated seed, or when transferring seed to a storage bin, must wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, head gear, shoes and socks.
4. Workers planting treated seed must wear long-sleeved shirt, long pants, chemical-resistant gloves, shoes and socks.
5. Workers bagging, sewing bags of treated seed, transferring seed to storage bins, handling and planting treated seed must also wear respiratory protection (i.e. NIOSH/MSHA/BHSE approved respirator or fresh air hood). Respiratory protection is not required when workers are in a closed cab tractor. 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.
6. Potential skin sensitizer. Wash thoroughly after handling and before eating, drinking or smoking.
7. If clothing becomes contaminated, remove and wash separately from household laundry before reuse.

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.

STORAGE

1. Store in original tightly closed container and the ideal storage temperature is above freezing and below 30°C. **INSURE CEREAL** freezes at -4°C and if frozen agitate prior to use.
2. To prevent contamination store this product away from food and feed.
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 Non-Returnable Containers

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.

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.

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.