

# ZOLERA® ODX Fungicide

FOR CONTROL OR SUPPRESSION OF CERTAIN DISEASES IN WHEAT (SPRING, DURUM, WINTER); BARLEY; CORN (FIELD AND SEED); CROP SUBGROUP 6C INCLUDING DRY PEA, DRY BEAN, LENTIL, CHICKPEA; and CROP SUBGROUP 20A INCLUDING CANOLA

**SUSPENSION** 

**COMMERCIAL** 

ACTIVE INGREDIENTS: fluoxastrobin 200 g/L tetraconazole 200 g/L

Commented [DJ(1]: PMRA requested insertion under Sub No. 2023-0851.

**REGISTRATION NUMBER 33981 PEST CONTROL PRODUCTS ACT** 

READ THE BOOKLET BEFORE USING KEEP OUT OF REACH OF CHILDREN POTENTIAL SKIN SENSITIZER CAUTION: EYE IRRITANT

NET CONTENTS: 250 mL to 1000 L

For Product Use Information Call: 1-800-438-6071

UPL AgroSolutions Canada Inc. PO Box 12219 Research Triangle Park, NC 27709

FOR CHEMICAL EMERGENCY: spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300

#### **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.

#### **PRECAUTIONS**

KEEP OUT OF REACH OF CHILDREN.

Potential skin sensitizer. Avoid contact with skin, eyes or clothing. May irritate eyes.

Wear cotton coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested when handling **ZOLERA ODX Fungicide**. Chemical resistant gloves should be made of any waterproof material, such as nitrile, butyl, neoprene and/or barrier laminate. These are only some of the glove materials that are chemically resistant to this product. Coveralls and gloves are not required during application within a closed cab or cockpit.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining equipment. If there are no such instructions for washables, use detergent and hot water. Keep and wash clothing separately from other laundry.

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. 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.

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**DO NOT** enter or allow worker entry into treated areas during the restricted entry intervals (REIs) specified in the following table:

Crop	Post-Application Activities	Restricted Entry Interval
Corn	Detasseling	21 days
	Hand-set irrigation	6 days
	Scouting, full foliage	1 day
	All other activities	12 hours

Dry Bean/Dry Pea	Hand-set irrigation	11 days	
	Scouting	6 days	
	All other activities	12 hours	
Canola	Scouting	2 days	
	All other activities	12 hours	
Wheat, Barley	All activities	12 hours	

Apply only when the potential for drift to areas of human habitation or 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.

Not for use in greenhouses.

#### **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: Treat symptomatically

#### **ENVIRONMENTAL PRECAUTIONS**

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

Fluoxastrobin and tetraconazole are persistent and may carryover. It is recommended that any products containing fluoxastrobin and/or tetraconazole not be used in areas treated with this product during the previous season.'

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.

#### **GENERAL INFORMATION**

**ZOLERA® ODX Fungicide** is a broad-spectrum fungicide for the control of certain diseases in wheat (spring, durum, winter), barley, corn (field and seed), dried shelled pea and bean (crop subgroup 6C), and rapeseed (crop subgroup 20A).

### **DIRECTIONS FOR USE**

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.

<u>Field sprayer application:</u> 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.

Thorough coverage is necessary to provide good disease control. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control. For ground application equipment, 100 L/ha minimum is recommended.

Equip sprayers with nozzles that provide accurate and uniform application. Be certain that nozzles are the same size and uniformly spaced across the boom. Calibrate the sprayer before use. Use a pump with the capacity to: (1) maintain a minimum of 240 kPa at nozzles, and (2) provide sufficient agitation in the tank to keep the mixture in suspension (this requires recirculation of 10% of the tank volume per minute). Use jet agitators or a liquid sparge tube for vigorous agitation. Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh screens at the nozzles. Check nozzle manufacturer's recommendations. For information on spray equipment and calibration, consult sprayer manufacturer's and/or provincial recommendations. For specific local directions and spray schedules, consult the current provincial recommendations.

### **Mixing Procedures**

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

Add 1/2 of the required amount of water to the mix-tank. With the agitator running, add the **ZOLERA ODX Fungicide** to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the **ZOLERA ODX Fungicide** has completely and uniformly dispersed into the mix-water. Maintain agitation until all of the mixture has been applied.

This product may be tank mixed with a fertilizer or a supplement, 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 **UPL AgroSolutions Canada Inc.** at **1-800-438-6071** for information before applying any tank mix that is not specifically recommended on this label.

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

Prior to aerial application, check aircraft for uniformity of spray pattern, spray swath width and output. Spray volumes of 50 litres/ha are generally optimum. If foliage is dense, use an output that will ensure optimum fungicide penetration. Spray swaths should be marked using flaggers who are in completely enclosed vehicles, by counting rows or by some other marking device.

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.

### **Aerial 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.

Read and understand the entire label before opening this product. If you have questions, call UPL AgroSolutions Canada Inc. ("UPL") at 1-800-438-6071 or obtain technical advice from the distributor or your provincial agricultural representative.

#### **SENSITIVE AREAS**

This pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

#### INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions.

#### **CONTROLLING DROPLET SIZE**

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream
  produces larger droplets than other orientations and is the recommended practice.
  Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most
  nozzle types, narrower spray angles produce larger droplets. Consider using low-drift
  nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the
  lowest drift.

### **USE DIRECTIONS FOR SPECIFIC CROPS**

**ZOLERA ODX Fungicide** provides control or suppression of several important diseases of wheat (spring, durum, winter), barley, corn (field and seed), dried shelled pea and bean (crop subgroup 6C), and rapeseed (crop subgroup 20A).

### **ROTATIONAL RESTRICTIONS**

Treated areas may be replanted immediately following harvest with any crop listed on this label. See the table below for the plant back intervals for other crops.

Crops	Rotational Interval
Labeled crops	0 days

Alfalfa	30 days
Forage grasses	
Brassica vegetables (e.g. broccoli, cauliflower, cabbage)	
Bulb vegetables (e.g. onion and garlic)	
Leafy Vegetables (e.g. lettuce, spinach and mustard greens)	
Legume vegetables (succulent peas and beans)	
Root vegetables subgroup (e.g. carrot, radish, sugar beet, turnips)	
Sunflower	180 days
All other crops	365 days

## Spray buffer zones:

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label, low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage

The spray 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.

			Spray Buffer Zones (metres) Required for the Protection of:				
Method of application	Crop		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	Habitat:
	Corn (field and seed)		1	0	1	1	0
Field sprayer	bariey and writer (durum, winter,		1	0	1	1	1
			1	0	2	1	1
	Corn (field and seed)	Fixed wing	1	0	15	10	0
Aerial Rapeseed (Crop Subgroup 20A), barley and wheat (durum, winter, spring)		Rotary wing	1	0	15	5	0
	. , .	Fixed wing	1	0	20	10	15
	Rotary wing	1	0	15	10	10	

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For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray 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 spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

WHEAT (spring, durum, winter) and BARLEY				
Crops	Disease Controlled or Suppressed	Product Rate to Use	Application Directions	
WHEAT (spring, durum, winter), BARLEY	Powdery Mildew (Erysiphe graminis)  Leaf Rust (Puccinia triticina, P. hordei)  Tan Spot (Pyrenophora triticirepentis)  Stripe Rust (Puccinia striiformis)  Stem Rust (Puccinia graminis)  Net Blotch (Pyrenophora teres)	350 mL/ha	For optimum results, apply preventively. A second application may be made if needed 14 to 21 days after the first application. Use the shortest interval (14 days) when conditions favour high disease pressure.  Apply prior to disease development from tillering up to late head emergence.  Do not apply later than head emergence.	
WHEAT (spring, durum, winter)	Septoria Leaf Blotch (Septoria tritici) (suppression)			
BARLEY	Scald (Rhynchosporium secalis)			

### RESTRICTIONS AND OTHER INFORMATION:

- Do not apply more than 700 mL of **ZOLERA ODX Fungicide** per hectare per year.
- If wheat forage will be harvested, make only one application.
- There is a maximum number of 2 applications per year.
- ZOLERA ODX Fungicide can be mixed with a non-ionic surfactant at 0.25% v/v.
- Do not apply within 7 days of harvest for hay and forage.
- Do not apply within 40 days of harvest for grain.
- Apply in a minimum of 100 L of water per hectare by ground application and a minimum of 50 L of water per hectare by aerial application.
- If barley hay will be harvested, make only one application.

CROP SUBGROUP 20A*, RAPESEED/CANOLA  Product Rate to Application Directions Use				
Sclerotinia Stem Rot/ White Mould (Sclerotinia sclerotiorum)	350 mL/ha	Apply preventively at 20% to 50% bloom stage. For optimum results apply prior to petals beginning to fall. A second application may be made if needed 7- to 14-days after the first application.		
		Use the shortest interval of 7 days when disease pressure is high.		

<sup>\*</sup> Crop Subgroup 20A - Borage; crambe; cuphea; echium; flax seed; gold of pleasure; hare's ear mustard; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; oil radish; poppy seed; rapeseed; sesame; sweet rocket cultivars, varieties, and/or hybrids of these.

### **RESTRICTIONS:**

- Do not apply more than 700 mL per hectare per year.
- There is a maximum number of 2 applications per year.
- ZOLERA ODX Fungicide can be mixed with a non-ionic surfactant at 0.25% v/v.
- Apply in a minimum of 100 L of water per hectare by ground application and a minimum of 50 L of water per hectare by aerial application.
- Do not apply within 21 days of harvest.

### CROP SUBGROUP 6C\*, DRIED SHELLED PEA AND BEA

\* Crop Subgroup 6C - Bean (*Lupinus* spp.) (includes grain lupin, sweet lupin, white lupin and white sweet lupin), Bean (*Phaseolus* spp.) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean), Bean (*Vigna* spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean), Broad bean (fava bean) (*Vicia faba*), Chickpea (garbanzo bean) (*Cicer arietinum*), Guar (*Cyamopsis tetragonoloba*), Lablab bean (hyacinth bean) (*Lablab purpureus*), Lentil (*Lens esculenta*), Pea (*Pisum* spp.) (includes field pea), Pigeon pea (*Cajanus cajan*)

Disease Controlled or Suppressed	Product Rate to Use	Application Directions
Mycosphaerella Blight of Pea (Mycosphaerella pinodes)		For optimum results, apply preventively. A second application may be made if
Ascochyta Leaf and Pod Spot	550 mL/ha	needed 7- to 14-days after the
of Lentil and Pea (Ascochyta		first application. Use the
lentis, A. pisi)		highest rate and the shortest
(suppression)		interval (7 days) when
		conditions favour high disease
White Mould	350 - 550 mL/ha	pressure.
(Sclerotinia sclerotiorum)		
(suppression)		To limit the potential for development of disease
Powdery Mildew of Peas		resistance follow the guidelines
(Erysiphe pisi)		outlined in RESISTANCE MANAGEMENT
Anthracnose of Dry Beans		RECOMMENDATIONS.
(Phaseolus spp., Vigna spp.,		
and Vicia fava) (Colletotrichum		
lindemuthianum) (suppression)		
, ( 11 ,		
Anthracnose <sup>1</sup> of Lentils		
(Colletotrichum lentis)		
(suppression)		
RESTRICTIONS AND OTHER IN	ORMATION:	•

#### **RESTRICTIONS AND OTHER INFORMATION:**

- Do not apply more than 1100 mL per hectare per year.
- There is a maximum number of 2 applications per year.
- **ZOLERA ODX Fungicide** can be mixed with a non-ionic surfactant at 0.2 0.5% v/v.
- Do not apply product within 14 days of harvest.
- Apply in a minimum of 100 L of water per hectare by ground application.
- Do not apply by air.
- <sup>1</sup> Includes Group 11 resistant biotypes.

Commented [DJ(2]: PMRA requested amendment under Sub No. 2023-0851.

CORN (Field and Seed)				
Disease Controlled	Product Rate to Use	Application Directions		
Common Rust (Puccinia sorghi)  Southern Corn Leaf Blight (Cochliobolus heterostrophus)  Grey Leaf Spot (Cercospora maydis)	500 mL/ha	For optimum results, apply preventively. Apply between the V4 (4 leaf collar) and dough stage (R4).		
Northern Corn Leaf Blight				
(Setosphaeria turcica, anamorph:				
Exserohilum turcicum)				

### RESTRICTIONS AND OTHER INFORMATION:

- Do not apply more than 1 application and a maximum of 500 mL of **ZOLERA ODX Fungicide** per hectare per year on field corn and seed corn.
- ZOLERA ODX Fungicide can be mixed with a non-ionic surfactant at 0.2% v/v. Do not
  use adjuvants in sprays made between V8 (8 leaf collar) and VT (lowest branch of the
  tassel visible but silks have not emerged) growth stage.
- Do not apply **ZOLERA ODX Fungicide** within 30 days of harvest of grain corn.
- Apply in a minimum of 100 L of water per hectare by ground application and a minimum of 50 L of water per hectare by aerial application.

#### RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that **ZOLERA ODX Fungicide** contains a Group 11 and Group 3 fungicide. Any fungal population may contain individuals naturally resistant to **ZOLERA ODX Fungicide** and other Group 11 or 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 ZOLERA ODX Fungicide or other Group 11 or 3 fungicides with different groups that control the same pathogens.
- 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, diseases 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 UPL if reduced sensitivity of the pathogen to ZOLERA ODX 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 UPL at 1-800-438-6071.

#### STORAGE

PESTICIDE STORAGE: To prevent contamination store this product away from food or feed.

**SPILL CLEAN-UP:** Follow safety precautions as directed for handling the product. If on a floor or hard surface, wash the surface or floor with detergent and water, then rinse. If on soil, collect surface soil contaminated with the product.

# 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:

- 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.

### For returnable containers:

DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

### For 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.

### Disposal of unused, unwanted product:

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.

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