

SORATEL™

Foliar Fungicide

Emulsifiable Concentrate

For Control or Suppression of Listed Diseases in Barley, Borage, *Brassica carinata*, Bushberries, Canola, Chickpeas, Crambe, Corn, Field Peas, Flax (Linseed), Lentils, Low Growing Berries except Strawberries, Oats, Oriental Mustard, Peanut, Rapeseed, Safflower, Soybean, Sugar Beet, Sunflower, Wheat and Certain Other Small Grains.

COMMERCIAL (AGRICULTURAL)



CAUTION – POISON

**EYE AND SKIN IRRITANT
POTENTIAL SKIN SENSITIZER**

REGISTRATION NUMBER: **34155**
PEST CONTROL PRODUCTS ACT

ACTIVE INGREDIENT:
Prothioconazole.....250 g/L

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

**ADAMA Agricultural Solutions Canada Ltd.
300 – 191 Lombard Ave.
Winnipeg, Manitoba R3B 0X1
1-855-264-6262**

For emergency medical help and health/safety inquiries call ProPharma Group at 1.877.250.9291 (24 hours a day)
For spill, leak or fire call INFOTRAC at 1.800.535.5053 (24 hours a day)

NET CONTENTS: 1 L to BULK

GENERAL INFORMATION

SORATEL is a broad-spectrum systemic fungicide for the control or suppression of listed *Ascomycetes*, *Basidiomycetes* and *Deuteromycetes* diseases on barley, borage, *Brassica carinata*, bushberries, canola, chickpeas, crambe, corn, field peas, flax (linseed), lentils, low growing berries (except strawberries), oats, Oriental mustard, peanut, rapeseed, safflower, soybean, sugar beet, sunflower, wheat and certain other small grains.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. May irritate eyes. Avoid contact with eyes. May irritate the skin. Avoid contact with skin. Potential skin sensitizer. Harmful if swallowed. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or smoking. If product comes in contact with clothing, remove all contaminated clothing, wash skin with soap and water and dress in clean clothing. Launder applicator clothing separate from other laundry. Apply only to agricultural crops 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. If this pest control product is to be used on a commodity that may be exported and you require information regarding Maximum Residue Limits for an importing country, please contact ADAMA Agricultural Solutions Canada Ltd. at 1-855-264-6262 or www.adama.com.

DO NOT enter or allow worker entry into treated areas during the intervals specified in the following table:

Crop	Postapplication Activity	REI and/or PHI
Low-Growing Berries (except strawberries), Safflower, Sunflower	Harvesting	45 days
	All other activities	24 hours
Canola, Rapeseed, Oriental Mustard, <i>Brassica carinata</i> , Flax (Linseed), Crambe, Borage	Harvesting	36 days
	All other activities	24 hours
Wheat (spring, durum and winter), Barley, Oats	Harvesting	30 days
	All other activities	24 hours
Soybean	Harvesting	20 days
	All other activities	24 hours
Sweet Corn	Hand harvesting	20 days
	Mechanical harvesting	14 days
	All other activities	24 hours
Seed Corn	Detasseling	20 days
	Harvesting	14 days
	All other activities	24 hours
Field Corn and Popcorn, Peanut	Harvesting	14 days
	All other activities	24 hours
Bushberry	Harvesting	7 days
	Hand line irrigation	3 days
	All other activities	24 hours
Chickpea, Lentils, Field Peas, Sugar Beet	Harvesting	7 days
	All other activities	24 hours

PROTECTIVE CLOTHING AND ENGINEERING CONTROLS:

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing and loading. Gloves are not required in a closed cab and/or cockpit.

When handling 272 L or more of product per day using an open-cab groundboom equipment, applicators must also wear a respirator with a NIOSH-approved organic-vapour-removing cartridge (with a prefilter) approved for pesticides, or a NIOSH-approved canister approved for pesticides.

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. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.

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 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.

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 and non-target terrestrial plants. Observe spray 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 filter strip between the treated area and the edge of the water body.

STORAGE

- Store this product away from food or feed.
- Keep away from fire or open flame or other sources of heat.
- Do not store at temperatures below freezing.
- If stored for 1 year or longer, shake well before using.
- Store the tightly closed container away from feeds, seeds, fertilizer, plants and foodstuffs.
- Do not use or store in or around the home.
- Keep in original container during storage.
- In case of fire, leaking or damaged containers, call toll free 1-800-535-5053.

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DISPOSAL

Recyclable Container 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.

Returnable Container:

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

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 cleanup of spills.

Disposal of Unused Spray Solution:

If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the area just sprayed, NOT ON THE CROP, away from water supplies, ditches, and irrigation canals. Spray buffer zones indicated in the DIRECTIONS FOR USE must also be respected.

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.

®

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GROUP 3 FUNGICIDE

Booklet

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SORATEL

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GENERAL INFORMATION

Section 1: The Product

SORATEL is a broad-spectrum systemic fungicide for the control or suppression of listed *Ascomycetes*, *Basidiomycetes* and *Deuteromycetes* diseases on barley, borage, *Brassica carinata*, bushberries, canola, chickpeas, crambe, corn, field peas, flax (linseed), lentils, low growing berries (except strawberries), oats, Oriental mustard, peanut, rapeseed, safflower, soybean, sugar beet, sunflower, wheat and certain other small grains.

SAFETY AND HANDLING

Section 2: Precautions, Protective Clothing & Engineering Controls, and Restricted Entry Interval.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. May irritate eyes. Avoid contact with eyes. May irritate the skin. Avoid contact with skin. Potential skin sensitizer. Harmful if swallowed. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or smoking. If product comes in contact with clothing, remove all contaminated clothing, wash skin with soap and water and dress in clean clothing. Launder applicator clothing separate from other laundry. Apply only to agricultural crops 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. If this pest control product is to be used on a commodity that may be exported and you require information regarding Maximum Residue Limits for an importing country, please contact ADAMA Agricultural Solutions Canada Ltd. at 1-855-264-6262 or www.adama.com

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	All other activities	24 hours
Sweet Corn	Hand harvesting	20 days
	Mechanical harvesting	14 days
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	Harvesting	14 days
	All other activities	24 hours
Field Corn and Popcorn, Peanut	Harvesting	14 days
	All other activities	24 hours
Bushberry	Harvesting	7 days
	Hand line irrigation	3 days
	All other activities	24 hours
Chickpea, Lentils, Field Peas, Sugar Beet	Harvesting	7 days
	All other activities	24 hours

PROTECTIVE CLOTHING AND ENGINEERING CONTROLS:

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing and loading. Gloves are not required in a closed cab and/or cockpit.

When handling 272 L or more of product per day using an open-cab groundboom equipment, applicators must also wear a respirator with a NIOSH-approved organic-vapour-removing cartridge (with a prefilter) approved for pesticides, or a NIOSH-approved canister approved for pesticides.

Section 3: First Aid and Toxicological Information

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. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.

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 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.

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

TOXICOLOGICAL INFORMATION

Treat symptomatically.

Section 4: ENVIRONMENTAL PRECAUTIONS

TOXIC to aquatic organisms and non-target terrestrial plants. Observe spray 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 filter strip between the treated area and the edge of the water body.

Section 5: STORAGE

- Store this product away from food or feed.
- Keep away from fire or open flame or other sources of heat.
- Do not store at temperatures below freezing.
- If stored for 1 year or longer, shake well before using.
- Store the tightly closed container away from feeds, seeds, fertilizer, plants and foodstuffs.
- Do not use or store in or around the home.
- Keep in original container during storage.
- In case of fire, leaking or damaged containers, call toll free 1-800-535-5053.

Section 6: DISPOSAL

Recyclable Container 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.

Returnable Container:

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

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 cleanup of spills.

Disposal of Unused Spray Solution:

If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the area just sprayed, **NOT ON THE CROP**, away from water supplies, ditches, and irrigation canals. Spray buffer zones indicated in the DIRECTIONS FOR USE must also be respected.

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.

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.

Airblast application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** direct spray above plants to be treated. Turn off outward pointing nozzles at

row ends and outer rows. **DO NOT** apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

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.

Tank Mixtures

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 ADAMA Agricultural Solutions Canada Ltd. at 1-855-264-6262 for information before applying any tank mix that is not specifically recommended on this label.

Spray Buffer Zones:

A spray buffer zone is **NOT** required for: uses with hand-held application equipment permitted on this label.

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.

Method of application	Crop		Spray Buffer Zones (metres) Required for the Protection of:			
			Aquatic Habitat of Depths:			Terrestrial Habitat
			Less than 1 m	1-3 m	Greater than 3 m	
Field sprayer	All listed crops		2	1	0	0
Airblast sprayer	Bushberries	Early growth stage	25	15	4	1
		Late growth stage	15	5	2	1
Aerial (fixed and rotary wing)	Canola, Oriental mustard, rapeseed, <i>Brassica carinata</i>		20	10	1	10
	Flax (linseed), crambe, borage, soybeans		10	0	0	0
	Corn, safflower, sunflower		15	5	0	0
	Oats		20	10	0	0
	Wheat, barley		25	10	0	10
	Lentils, field peas		30	10	0	15
	Sugarbeets		45	15	4	15
Chickpeas		50	15	5	15	

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most

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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 Pest Management Regulatory Agency web site.

Section 7: Crop, Disease, Rate, Timing

CEREALS (Barley, Wheat and Oats and Certain Other Small Grains)			
CROP	DISEASE	RATE	TIMING
Barley	For suppression of Fusarium Head Blight (<i>Fusarium</i> spp.), or Scab	Apply SORATEL once, at 0.6-0.8 L/ha (150-200 g a.i./ha)	<p>Fusarium head blight outbreaks in barley occur when the weather is warm and wet at ear emergence. The application of SORATEL for protection against Fusarium head blight (scab) should be considered when these environmental conditions are forecasted for this stage of barley development.</p> <p>Timing of application is critical: For optimum suppression of Fusarium head blight, apply SORATEL as a preventative spray within the time period when 70 to 100% of the barley main stem heads are fully emerged, to 3 days after full head emergence.</p> <p>Application of the 0.8 L/ha rate is suggested in situations where disease pressure is expected to be high. Such situations may occur when prolonged periods of warm wet weather are forecast during barley ear emergence, when barley is grown in a crop rotation that has contained corn or when susceptible cultivars are grown. Use of the 0.8 L/ha rate will typically provide highest levels of mycotoxin reduction.</p> <p>Spray Coverage is essential for optimum efficacy: Spray equipment must be set up to provide good coverage to barley heads. To achieve thorough barley head coverage using ground application equipment, it is recommended to use forward and backward mounted nozzles or nozzles that have a two-directional spray. Nozzles should be operated within the spray pressure recommendations suggested by the manufacturer.</p> <p>NB. A tank mixture of SORATEL + ORIUS 430 SC for suppression of Fusarium Head Blight can be used instead of using SORATEL alone. Refer to SORATEL TANK MIX with ORIUS 430 SC FOLIAR FUNGICIDE for WHEAT and BARLEY below.</p>
	For control of: Net Blotch (<i>Pyrenophora teres</i>); Scald (<i>Rhynchosporium secalis</i>) Spot Blotch (<i>Cochliobolus</i>)	Apply SORATEL, at 0.4-0.6 L/ha (100-150 g a.i./ha)	Apply SORATEL as a preventive foliar spray when the earliest disease symptoms appear on the leaves and stems. Barley fields should be observed closely for early disease symptoms, particularly when susceptible varieties are planted and/or under prolonged conditions favorable for disease development.

	<i>sativus</i>)		
Note: A maximum of 2 applications (1.4 L/ha) of SORATEL, with a minimum 7 day application interval, may be applied per barley crop, per year. Do not apply within 30 days of harvest. Applications may be made by ground or aerial spray equipment.			
Wheat (spring, durum and winter)	For suppression of Fusarium Head Blight (<i>Fusarium</i> spp.), or Scab For control of Glume blotch (<i>Stagonospora nodorum</i>)	Apply SORATEL once, at 0.6-0.8 L/ha (150-200 g a.i./ha)	<p>Fusarium head blight outbreaks in wheat occur when the weather is warm and wet at head emergence and flowering. The application of SORATEL for protection against Fusarium head blight (scab) should be considered when these environmental conditions are forecasted for this stage of wheat development.</p> <p>Timing of application is critical: For optimum suppression of Fusarium head blight or control of Glume blotch, apply SORATEL within the time period from when at least 75% of the wheat heads on the main stem are fully emerged to when 50% of the heads on the main stem are in flower.</p> <p>Application of the 0.8 L/ha rate is suggested in situations where disease pressure is expected to be high. Such situations may occur when prolonged periods of warm, wet weather are forecast during anthesis, when wheat is grown in a crop rotation that has contained corn or when more susceptible cultivars or wheat types (i.e. durum) are grown.</p> <p>Use of the 0.8 L/ha rate will typically provide highest levels of mycotoxin reduction.</p> <p>Spray Coverage is essential for optimum efficacy: Spray equipment must be set up to provide good coverage to wheat heads. To achieve thorough wheat head coverage using ground application equipment, it is recommended to use forward and backward mounted nozzles or nozzles that have a two-directional spray. Nozzles should be operated within the spray pressure recommendations suggested by the manufacturer.</p> <p>NB. A tank mixture of SORATEL + ORIUS 430 SC for suppression of Fusarium Head Blight can be used instead of using SORATEL alone. Refer to SORATEL TANK MIX with ORIUS 430 SC FOLIAR FUNGICIDE for WHEAT and BARLEY below.</p>
	For control of: Speckled Leaf Blotch (<i>Septoria tritici</i>); Tan spot (<i>Pyrenophora tritici-repentis</i>); Leaf Rust (<i>Puccinia recondita</i>)	Apply SORATEL at 0.6 L/ha (150 g a.i./ha)	Apply SORATEL as a preventive foliar spray when the earliest disease symptoms appear on the leaves and stems. Wheat fields should be observed closely for early disease symptoms, particularly when susceptible varieties are planted and/or under prolonged conditions favorable for disease development.
Note: A maximum of 2 applications (1.4 L/ha) of SORATEL, with a minimum 7 day application interval, may be applied per wheat crop per year. Do not apply within 30 days of harvest. Applications may be made by ground or aerial spray equipment.			
Oats	For control of Crown Rust	Apply SORATEL at	Apply SORATEL as a preventive foliar spray when the earliest disease symptoms appear on the leaves and stems.

	<i>(Puccinia coronata)</i>	0.6 L/ha (150 g a.i./ha)	Fields should be observed closely for early disease symptoms, particularly when susceptible varieties are planted and/or under prolonged conditions favorable for disease development.
Note: A maximum of 2 applications (1.2 L/ha) of SORATEL, with a minimum 7 day application interval, may be applied per oat crop per year. Do not apply within 30 days of harvest. Applications may be made by ground or aerial spray equipment.			
Pearl millet, Proso millet, Rye, Triticale, Teosinte, Buckwheat	For suppression of: Fusarium Head Blight (<i>Fusarium</i> spp.), or Scab – except buckwheat For control of: Rust (<i>Puccinia</i> spp.)	Apply SORATEL at 0.6-0.8 L/ha (150-200 g a.i./ha)	Apply SORATEL as a preventive foliar spray when the earliest disease symptoms appear on the leaves and stems. Fields should be observed closely for early disease symptoms, particularly when susceptible varieties are planted and/or under prolonged conditions favorable for disease development.
Note: A maximum of 2 applications (1.4 L/ha) of SORATEL, with a minimum 7 day application interval, may be applied per year. Do not apply within 30 days of harvest. Applications may be made by ground equipment only.			

SORATEL TANK MIX with ORIOUS 430 SC FOLIAR FUNGICIDE for WHEAT and BARLEY

CEREALS (Barley, Wheat) SORATEL plus ORIOUS 430 SC FOLIAR FUNGICIDE			
CROP	DISEASE	RATE	TIMING
Wheat (spring, durum and winter), Barley	For Suppression of Fusarium Head Blight (<i>Fusarium</i> spp.)	Apply SORATEL at 0.4 L/ha (100 g a.i./ha) plus ORIOUS 430 SC Foliar Fungicide at 0.232 L/ha (100 g a.i./ha) plus a Non-ionic Surfactant (NIS) (e.g. ADAMA Adjuvant 80) at 0.125% v/v	Fusarium head blight outbreaks in wheat and barley occur when the weather is warm and wet at head emergence and flowering. The application of SORATEL + ORIOUS 430 SC at the specified application rate for protection against Fusarium Head Blight (Scab) should be considered when these environmental conditions are forecasted for this stage of wheat and barley development. Timing of application is critical: For optimum suppression of Fusarium Head Blight, apply the tank mix of SORATEL + ORIOUS 430 SC as a preventative spray in: <ul style="list-style-type: none"> WHEAT: within the time period from when at least 75% of the wheat heads on the main stem are fully emerged to when 50% of the heads on the main stem are in flower. BARLEY: within the time period from when at least 70 to 100% of the barley main stem heads are fully emerged, to 3 days after full head emergence and 75% of the wheat heads on the main stem are fully emerged to when 50% of the heads on the main stem are in flower. Apply by ground application equipment ONLY at the specified dosage in a minimum of 100 L of water per hectare.
RESTRICTIONS: Maximum number of applications per year: A maximum of one (1) application of the SORATEL + ORIOUS 430			

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SC tank-mix described above may be applied per wheat or barley crop per year.

Pre-harvest Interval: Do not apply within 36 days of harvest.

Grazing Interval: Do not allow livestock to graze or feed green forage to livestock prior to 6 days after treatment. Straw cut after harvest may be fed or used for bedding.

Restricted Entry Interval: Do not enter treated fields for 12 hours after application.

OILSEED CROPS (Canola, Rapeseed, Oriental Mustard, <i>Brassica carinata</i>)			
CROP	DISEASE	RATE	TIMING
Canola, Rapeseed, Oriental mustard, <i>Brassica carinata</i>	For control of Sclerotinia stem rot (<i>Sclerotinia sclerotiorum</i>)	Apply SORATEL at 0.6-0.7 L/ha (150-175 g a.i./ha)	Apply SORATEL when the crop is in the 20 - 50% bloom stage. Best protection will be achieved when the fungicide is applied prior to petals beginning to fall, and will allow for the maximum number of petals to be protected. The 0.6 L/ha rate is the recommended rate for most oilseed crops, however, the higher rate is recommended for fields with a history of heavy disease pressure or for dense crop stands. Good spray coverage of the plants is essential. A second application at a rate of 0.6 L/ha may be applied 7-10 days later, up to full bloom, if disease persists or weather conditions are favorable for disease development. When conditions favoring disease are severe, use the shorter interval.
Note: Applications may be made by ground or aerial spray equipment. A maximum of two applications (1.3 L/ha) of SORATEL may be applied per crop year. Do not apply within 36 days of harvest.			

PULSE CROPS (Chickpeas, Lentils, Field Peas)			
CROPS	DISEASE	RATE	TIMING
Chickpeas	For control of Ascochyta blight (<i>Ascochyta rabiei</i>)	Apply SORATEL at 0.6-0.8 L/ha (150-200 g a.i./ha)	Apply SORATEL at the first sign of disease. Apply the higher rate when conditions favour disease development, or when growing less disease resistant varieties. After the initial application, repeat applications may be made on 10-14 day intervals. A maximum of 2.4 L/ha of SORATEL may be applied per crop year for chickpeas. Maximum of three applications per year.
Lentils, Field Peas	For control (suppression only in Field Peas) of Ascochyta blight (<i>Ascochyta spp.</i>) White mold (<i>Sclerotinia sclerotiorum</i>)	Apply SORATEL at 0.6-0.8 L/ha (150-200 g a.i./ha)	Apply SORATEL at the beginning of flowering or at first sign of disease. After the initial application, one additional application may be made 10-14 days afterwards if conditions remain favourable for continued or increased disease development. Apply the higher rate when conditions favour disease development, or when growing less disease resistant varieties. A maximum of 1.6 L/ha of SORATEL may be

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			applied per crop year for lentils. Maximum of two applications per year.
Note: Applications may be made by ground or aerial spray equipment. Do not apply within 7 days of cutting or swathing of the crop.			

Soybean			
CROP	DISEASE	RATE	TIMING
Soybean	For control of: Asian soybean rust (<i>Phakopsora pachyrhizi</i>) Frogeye leaf spot (<i>Cercospora sojina</i>)	Apply SORATEL at 0.4 L/ha (100 g a.i./ha)	Apply SORATEL when first symptoms of disease can be found or that the risk of infection is imminent. Do not apply more than one application per season.
Note: The application may be made by ground or aerial spray equipment. Do not apply within 20 days of harvest.			

Corn (field, sweet and popcorn)			
CROP	DISEASE	RATE	TIMING
Corn (field, sweet and popcorn, including seed production)	For the control of Rusts (<i>Puccinia sorghi</i> , <i>Puccinia polysora</i>), Eyespot (<i>Kabatiella zae</i> or <i>Aureobasidium zae</i>), and Northern Blight (<i>Setosphaeria turcica</i>)	Apply SORATEL at 0.6 L/ha (150 g a.i./ha)	Apply SORATEL as a preventive foliar spray when the earliest disease symptoms appear on the leaves and stems. Fields should be observed closely for early disease symptoms, particularly under prolonged conditions favorable for disease development.
	Provides control of all diseases listed above, plus the following: For the control of Grey Leaf Spot (<i>Cercospora zae-maydis</i>) For the suppression of Fusarium and Gibberella ear rots (<i>Fusarium</i> spp. and <i>Gibberella</i> spp.) For suppression of the stalk rot pathogens <i>Fusarium</i> spp., <i>Gibberella</i> spp. and <i>Colletotrichum</i> spp. which may cause stalk lodging.	Apply SORATEL at 0.8 L/ha (200 g a.i./ha)	Fusarium Ear Rot outbreaks in corn occur when the weather is warm and wet during silking. It is also driven by hybrid selection and field history of severe fusarium outbreaks. The application of SORATEL for protection against Fusarium Ear Rot should be considered when these conditions are forecasted for a specific corn field. Applications of SORATEL timed for suppression of fusarium ear rot may also reduce lodging caused by stalk rot pathogens. Timing of application is critical: For optimum suppression of Fusarium Ear Rot apply SORATEL from the development stage of corn between the tip of stigmata visible (silking, BBCH 63) to the stigmata drying (silk browning, BBCH 67). SORATEL will reduce both disease symptoms and levels of mycotoxin in the grain. Spray Coverage is essential for optimum efficacy: Spray equipment must be set up to provide good coverage to the cobs. To achieve thorough cob coverage using ground application equipment, it is recommended to use drop-nozzles.

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		Nozzles should be operated within the spray pressure recommendations suggested by the manufacturer.
Note: The application may be made by ground or aerial spray equipment. Do not apply within 14 days of harvest. Do not apply more than one application per season.		

Peanut		
DISEASE	RATE	TIMING
<u>Soil-Borne:</u> Suppression of <i>Rhizoctonia</i> pod rot (<i>Rhizoctonia solani</i>)	0.8 L/ha (200 g a.i./ha)	For Soil-Borne Diseases Applications of fungicides with a different mode of action should be made prior to and following applications of SORATEL to discourage development of resistant strains of fungi. In fields with a history of pod rot or in situations where conditions favour disease development apply SORATEL at about mid-season and continue SORATEL applications at 14-day intervals. SORATEL must be carried by rainfall or irrigation into the root and pod zone for control of pod rot caused by <i>Rhizoctonia solani</i> . Drought conditions will decrease the effectiveness of SORATEL against pod rot.
<u>Foliar:</u> Early Leaf Spot (<i>Cercospora arachidicola</i>) Suppression of Leaf Rust (<i>Puccinia arachidis</i>)	0.7-0.8 L/ha (175 - 200 g a.i./ha)	Foliar Disease Spray Program Apply the specified rate in a preventive spray schedule. Apply up to 4 sprays using a 14-day interval. When planting varieties with good to excellent levels of resistance to foliar diseases, the application interval may be extended up to 21 days in the absence of soil borne diseases. Use the higher use rate when conditions are favourable for severe disease pressure and/or when growing less disease resistant varieties.
Note: Apply up to four (4) applications of SORATEL per year. A maximum of 3.2 L per hectare of SORATEL may be applied per year. SORATEL may be applied up to 14 days before harvest. Do not feed hay or threshings or allow livestock to graze in treated areas. Applications may be made by ground spray equipment only.		

Bushberry			
CROP	DISEASE	RATE	TIMING
Bushberry subgroup: Aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry;	Suppression of Septoria leaf spot (<i>Septoria</i> spp.)	Apply SORATEL at 0.6 L/ha (150 g a.i./ha).	Apply SORATEL at the first sign of disease. After the initial application, one additional application may be made 10-14 days afterwards if conditions remain favorable for continued or increased disease development.
	Suppression of Leaf rust (<i>Thekopsora minima</i>) and Valdensinia	Apply SORATEL at 0.76 L/ha (190 g a.i./ha)	

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honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these.	leaf spot (<i>Valdensinia heterodoxa</i>) - blueberry only		
	Monilinia blight (<i>Monilinia vaccinii- corymbosi</i>) – blueberry only	Apply SORATEL at 0.6-0.8 L/ha (150-200 g a.i./ha)	Begin applications at early bloom for fruit rot. Make a second application of SORATEL or another approved fungicide 5-10 days later.
General Comments: Apply up to two (2) applications of SORATEL per year. Applications may be made by ground application equipment only. A maximum of 1.6 L/ha of SORATEL may be applied per crop year. Do not apply within 7 days of harvest.			

Low-Growing Berry, except strawberry			
CROP	DISEASE	RATE	TIMING
Low growing berry subgroup, except strawberry: Bearberry; bilberry; cloudberry; cranberry; partridgeberry; cultivars, varieties, and/or hybrids of these	Fruit rot: <i>Coleophoma empetri</i> , <i>Glomerella cingulata</i> , <i>Phyllosticta vaccinii</i> , <i>Physalospora vaccinii</i> <i>Allantophomopsis lycopodina</i> , <i>Allantophomopsis cytispora</i> , <i>Fusicoccum putrefaciens</i> , <i>Penicillium</i> spp., <i>Phomopsis vaccinii</i> , <i>Colletotrichum acutatum</i> , <i>Colletotrichum coccodes</i> Suppression of Septoria leaf spot (<i>Septoria</i> spp.)	Apply SORATEL at 0.7 L/ha (175 g a.i./ha)	Begin applications at early bloom for fruit rot. Make a second application of SORATEL or another approved fungicide 5-10 days later if conditions remain favorable for continued or increasing disease development.
General Comments: Apply up to two (2) applications of SORATEL per year. Applications may be made by ground spray equipment only. A maximum of 1.4 L/ha of SORATEL may be applied per crop year. Do not apply within 45 days of harvest.			

Sunflower, Safflower		
DISEASE	RATE	TIMING
Sunflower rust (<i>Puccinia helianthi</i>)	Apply SORATEL at 0.8 L/ha (200 g a.i./ha)	Apply SORATEL when average rust severity reaches 1% on the upper 4, fully expanded leaves prior to or during bloom.
Safflower rust (<i>Puccinia carthami</i>)		
Note: The application may be made by ground or aerial spray equipment. A maximum of one application (0.8		

L/ha of SORATEL) may be applied to sunflower or safflower per crop year. Do not apply within 45 days of harvest. If applying SORATEL to greater than 310 ha per day of sunflower and/or safflower using open cab groundboom equipment, applicators must also wear a NIOSH/MSHA-approved respirator.

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than ADAMA Agricultural Solutions Canada Ltd. under the User Requested Minor Use Label Expansion program. For these uses, ADAMA Agricultural Solutions Canada Ltd. 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	RATE	TIMING
Sunflower, Safflower	For suppression of Sclerotinia head rot (<i>Sclerotinia sclerotiorum</i>)	Apply SORATEL at 0.8 L/ha (200 g a.i./ha)	Apply SORATEL when the crop is in the 10 - 50% disk flower bloom stage.

Note: The application may be made by ground or aerial spray equipment. A maximum of one application (0.8 L/ha of SORATEL) may be applied to sunflower or safflower per crop year. Do not *apply* within 45 days of harvest. If applying SORATEL to greater than 310 ha per day of sunflower and/or safflower using open cab groundboom equipment, applicators must also wear a NIOSH/MSHA-approved respirator.

Flax (linseed), Crambe, Borage	For control of Sclerotinia stem rot (<i>Sclerotinia sclerotiorum</i>)	Apply SORATEL at 0.6-0.7 L/ha (150-175 g a.i./ha)	Apply SORATEL when the crop is in the 20 - 50% bloom stage. Best protection will be achieved when the fungicide is applied prior to petals beginning to fall, and will allow for the maximum number of petals to be protected. The higher rate is recommended for fields with a history of heavy disease pressure or for dense crop stands. Good spray coverage of the plants is essential.
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Note: The application may be made by ground or aerial spray equipment. A maximum of one application (0.7L/ha of SORATEL) may be applied per crop year. Do not apply within 36 days of harvest.

Sugar beets	For control of foliar diseases: Cercospora Leaf Spot (<i>Cercospora beticola</i>)	Apply SORATEL at 0.6-0.8 L/ha (150-200 g a.i./ha)	Apply SORATEL at the first sign of disease. Use the higher rate and shorter intervals when conditions are favorable for severe disease pressure and/or when growing less disease-resistant varieties. Apply the specified rate of SORATEL in 100 – 200 L of water per hectare when using ground application equipment. Repeat applications as needed using a 14 to 21- day spray interval depending on disease pressure. Use a 14-day spray interval under normal to heavy disease pressure and a 21-day spray interval under light disease pressure.
	For control of soil-borne diseases: Rhizoctonia Crown Rot (<i>Rhizoctonia solani</i>)	Apply SORATEL at 0.8 L/ha (200 g a.i./ha)	Apply SORATEL at the 4-leaf to row closure growth stage. Apply the specified rate of SORATEL in 50 – 100 L of water per hectare. Repeat applications as needed using a 21-day spray interval.

Note: A maximum of 3 applications (2.4 L/ha of SORATEL) may be applied per crop year. Do not apply within 7 days of harvest. The application may be made by ground or aerial application equipment. SORATEL is a Group 3 fungicide. To limit the potential for development of disease resistance, alternate every application of SORATEL with a non-Group 3 fungicide.

Rotation restrictions:

Treated areas may be replanted with any crop specified on this label as soon as practical after the last application. For crops not listed on this label, do not plant back within 30 days of last application.

Section 8: Resistance Management

Resistance Management Recommendations:

For resistance management, SORATEL contains a Group 3 fungicide. Any fungal population may contain individuals naturally resistant to SORATEL 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:

- Alternate with fungicides having a different mode of action other than Group 3 every 7 to 10 days after each application of SORATEL.
- Do not apply more than the indicated maximum number of applications per year specified for each crop in the DIRECTIONS FOR USE, Section 7 table.
- Use tank mixtures with fungicides 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 ADAMA Agricultural Solutions Canada Ltd. if reduced sensitivity of the pathogen to SORATEL 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 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 ADAMA Agricultural Solutions Canada Ltd. representative at 1-855-264-6262 or at www.adama.com.

Section 9: Application Precautions

GROUND APPLICATION:

1. Use well-maintained and calibrated conventional spray equipment, which provides adequate and uniform coverage.
2. Apply SORATEL in a minimum of 100 L water/ha, unless otherwise specified in DIRECTIONS FOR USE, Section 7.
3. Spray screens should be no finer than 50 mesh.
4. Ensure that the by-pass line discharges at the bottom of the tank to minimize foaming.
5. Maintain pressure at no less than 275 kPa to ensure good foliage penetration and coverage.
6. Provincial spray buffer zones that are greater than the spray buffer zones indicated in the DIRECTIONS FOR USE, Section 7, should be respected.
7. If spray mixture remains in the tank overnight, or for long periods during the day, agitate thoroughly prior to application.

AERIAL APPLICATION-GENERAL INFORMATION:

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1. 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.
2. 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. If you have questions, call 1-855-264-6262 or obtain technical advice from the distributor or your provincial agricultural representative.
3. Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.
4. Apply SORATEL in a minimum of 50 L of water/ha.
5. To ensure proper coverage and distribution and to minimize drift, check to see that swath width and droplet size are adequate, and that wind velocities are low.
6. Use mechanical flaggers only.

AERIAL APPLICATION-USE PRECAUTIONS:

1. Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage.
2. 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.

AERIAL APPLICATION- OPERATOR PRECAUTIONS:

1. **DO NOT** allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.
2. It is desirable that the pilot has communication capabilities at each treatment site at the time of application.
3. The field crew and mixers/loaders must wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing and loading.
4. All personnel on the job site must wash hands and face thoroughly before eating and drinking.
5. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.
6. Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-855-264-6262 or obtain technical advice from the distributor or your provincial agricultural representative.

Section 10: Mixing Instructions

Mixing Instructions:

SORATEL must be applied with properly calibrated, clean equipment. Prior to adding SORATEL to the spray tank, ensure that the spray tank is thoroughly clean.

SORATEL applied alone:

- Add one-half of the required amount of water to the spray or mixing tank and start agitation.
- Add the required quantity of SORATEL to the water and complete filling with water to the required total volume.

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- Maintain agitation throughout mixing and spraying.

Section 11: Notices

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.

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