SILVERADO WDG Herbicide



GROUP 2 HERBICIDE

Wettable Granules

FOR POSTEMERGENCE CONTROL OF WILD OATS in SPRING WHEAT AND DURUM WHEAT

FOR USE ONLY IN MANITOBA, SASKATCHEWAN, ALBERTA AND PEACE RIVER, OKANAGAN AND CRESTON FLATS REGIONS OF BRITISH COLUMBIA

AGRICULTURAL

GUARANTEE: mesosulfuron-methyl 2%

REGISTRATION NO. 29707 PEST CONTROL PRODUCTS ACT



WARNING - EYE IRRITANT

READ THE LABEL AND LEAFLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

NET CONTENTS: 0.25 to 20 Kg

Product Information: 1-888-283-6847 www.bayercropscience.ca

Bayer CropScience Inc. Suite 200, 160 Quarry Park Blvd. SE, Calgary, AB T2C 3G3

In case of spills, poisoning or fire, telephone emergency response number 1-800-334-7577 (24 hours a day).

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed or absorbed through skin. Causes eye irritation. Do not get in eyes. Avoid contact with skin, eyes or clothing. Wash thoroughly after using and before eating, drinking, smoking or using the toilet. Remove contaminated clothing immediately, then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. 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 PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings. Protective Clothing and Equipment: Wear a long-sleeved shirt, long pants, chemical resistant gloves and shoes plus socks during mixing, loading, clean-up and repair. In addition, wear goggles or face shield during mixing/loading. Applicators must wear long-sleeved shirt, long pants and shoes plus socks. Re-entry Interval: **DO NOT** enter or allow worker entry into treated areas for 12 hours after application. If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at: www.croplife.ca. FIRST AID: Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention. If swallowed, call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person. If 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,** remove 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 treatment advice. TOXICOLOGICAL INFORMATION: This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. No specific antidote is available. Treat the patient symptomatically. **ENVIRONMENTAL HAZARDS:** TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE. This product contains aromatic petroleum distillates which are toxic to aquatic organisms. 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. **STORAGE:** Keep in original container during storage. Store in a cool, dry place. To prevent contamination store this product away from food or feed. Do not use or store in or around the home. **DISPOSAL AND DECONTAMINATION: Recyclable Container:** DO NOT reuse this container for any other 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. 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. The user assumes the risk to persons or property that arises from any such use of this product.

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Silverado® is a registered trademark of Bayer.

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Herbicide

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GENERAL INFORMATION

SECTION 1: NOTICE

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

SECTION 2: THE PRODUCT

Silverado WDG Herbicide is a post-emergent herbicide that provides control of wild oats in Spring Wheat (hard red spring, Canada Prairie spring, soft white spring, and extra strong or utility), and Durum Wheat

FOR SALE FOR USE IN THE PRAIRIE PROVINCES AND PEACE RIVER, OKANAGAN AND CRESTON FLATS REGIONS OF BRITISH COLUMBIA

SAFETY AND HANDLING

SECTION 3: PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed or absorbed through skin.

Causes eye irritation. Do not get in eyes. Avoid contact with skin, eyes or clothing. Wash thoroughly after using and before eating, drinking, smoking or using the toilet. Remove contaminated clothing immediately, then wash thoroughly and put on clean clothing.

Remove Personal Protective Equipment (PPE) immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. 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 PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

Protective Clothing and Equipment: Wear a long-sleeved shirt, long pants, chemical resistant gloves and shoes plus socks during mixing, loading, clean-up and

repair. In addition, wear goggles or face shield during mixing/loading. Applicators must wear long-sleeved shirt, long pants and shoes plus socks.

Re-entry Interval: DO NOT enter or allow worker entry into treated areas for 12 hours after application.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at: www.croplife.ca.

SECTION 4: FIRST AID AND TOXICOLOGICAL INFORMATION

FIRST AID:

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

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

TOXICOLOGICAL INFORMATION: This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. No specific antidote is available. Treat the patient symptomatically.

SECTION 5: ENVIRONMENTAL HAZARDS

TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE. This product contains aromatic petroleum distillates which are toxic to aquatic organisms.

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.

SECTION 6: STORAGE

- Keep in original container during storage.
- Store in a cool, dry place.
- To prevent contamination store this product away from food or feed.
- Do not use or store in or around the home.

SECTION 7: DISPOSAL AND DECONTAMINATION

Recyclable Container

DO NOT reuse this container for any other 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.

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.

DIRECTIONS FOR USE

SECTION 8: CROPS AND WEEDS

8.1 CROPS AND APPLICATION TIMING

Silverado WDG Herbicide may be applied to the following crops when at the indicated growth stages:

CROP	GROWTH STAGE	REMARKS
Wheat (Spring and Durum)	Crops may be treated when at the 2-leaf stage of growth up to and including the 6-leaf plus 3 tillers stage.	Do not apply to a crop that is stressed by severe weather conditions, frost, low fertility, drought, water-saturated soil, disease or insect damage, as crop injury may result.

8.2 WEEDS CONTROLLED AND APPLICATION RATE

Treatment with Silverado WDG Herbicide at 125 g/ha plus Hasten Spray Adjuvant at 1.75 L/ha, and applied according to label recommendations, will provide control the following weed species:

WEED SPECIES	RECOMMENDED STAGE
Wild oats	1-leaf stage up to and
	including 3 tillers

- Silverado WDG Herbicide is a water dispersible granule that does not include an adjuvant. Hasten Spray Adjuvant must be tank mixed with Silverado WDG Herbicide (see Section 11 "Mixing Instructions").
- Silverado WDG Herbicide is absorbed through the foliage of wild oats, rapidly inhibiting growth. Visual symptoms progress from yellowing to necrosis of the growing point and eventual death.
- Best results are obtained when application is made to emerged, young, actively growing weeds in vigourously growing wheat.
- Under stressed conditions and/or heavy crop canopy, early application will result in improved weed control.
- Weeds growing under adverse environmental conditions such as excess soil moisture, drought or extreme cold weather drought will be less susceptible to Silverado WDG Herbicide.

SECTION 9: APPLICATION INSTRUCTIONS and USE LIMITATIONS

9.1 GENERAL REMINDERS FOR SUCCESSFUL OPERATION

- Apply only once per season with ground equipment.
- For best results, apply to emerged, young, actively growing weeds.
- Treat heavy weed infestations before they become competitive with the crop.
- Silverado WDG Herbicide will have an effect on weeds that are larger than the recommended leaf stage, however the speed of activity and level of control may be reduced.

- Under cool and/or dry conditions activity may be reduced or delayed. Weed control may also be reduced if application is made when weeds are dust covered or in the presence of heavy dew, fog, or mist/rain.
- If crop is under stress due to abnormal environmental conditions, delay application until stress passes and after both crop and weeds have resumed active growth.
- Follow directions under Section 8 for the correct rate and timing of application.
- Avoid overlapping; shut off spray boom while starting, turning, slowing or stopping to prevent crop injury from over-application.
- Avoid contact with desirable plants or crops either from direct application or from spray drift as severe damage may occur.
- DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.
- Do not treat wheat underseeded to legumes.

9.2 GROUND APPLICATION

- Apply in a minimum water volume of 93.5 L/ha, using a spray pressure of 207-345 kPa, to ensure proper weed coverage.
- Flat fan nozzles of 80° or 110° are recommended for optimum coverage.
- Do not use floodjet or controlled droplet application equipment or Sprafoil[®] equipment.
- Nozzles may be oriented 45° forward to enhance crop penetration and to give better weed coverage.
- Uniform, thorough coverage is important to obtain consistent weed control. The higher water volumes should be used under dense crop and weed canopies to ensure thorough coverage of the target weeds.
- <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) medium classification. Boom height must be 60 cm or less above the crop or ground.
- DO NOT apply by air.

9.3 BUFFER ZONES

Uses of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands).

Method of Application	Crop	Buffer Zone (metres) Required for the Protection of Terrestrial Habitat:
Field Sprayer	Wheat (spring, durum)	1

9.4 ROTATIONAL CROPS

Only the following crops have been field tested to indicate they may be safely planted at the prescribed interval after an application of Silverado WDG Herbicide. To avoid the possibility of injury to subsequent crops after an application of the recommended rate of Silverado WDG Herbicide, follow the crops and replanting interval which appear on this label. A field bioassay must be conducted the year prior to growing any other crop of interest to confirm crop safety.

Warning: Crop injury may result if environmental conditions such as prolonged drought and/or cold temperatures occur within the following cropping season. If these conditions exist, a soil bioassay may be necessary to ensure rotational crop safety.

Crop	Rotation Interval
Wheat, spring	10 months
Wheat, durum	10 months
Barley, spring	10 months
Sunflowers	10 months
Soybean	10 months
Lentils	10 months
Common Dry Beans	10 months
Peas, field	10 months
Sugarbeets	10 months
Potatoes	10 months
Canola	10 months
Corn, field	12 months

SECTION 10: PRE-HARVEST- AND PRE-GRAZING/FEEDING INTERVALS

- DO NOT graze the treated crops or cut for forage within 30 days of application.
- DO NOT harvest the treated crops for hay within 50 days of application.
- DO NOT harvest wheat for grain or straw within 55 days of application.

SECTION 11: MIXING INSTRUCTIONS

Silverado WDG Herbicide must be applied with clean and properly calibrated spray equipment. Prior to adding Silverado WDG Herbicide to the spray tank, ensure that the spray tank, filters and nozzles have been thoroughly cleaned (see Section 16 "Sprayer Cleanup").

- 1. Fill the spray tank ¼ to ⅓ full with clean water and begin agitation.
- 2. While agitating, add the appropriate amount of Silverado WDG Herbicide.
- 3. Continue agitation until Silverado WDG Herbicide is fully dispersed, at least 5 minutes.
- 4. Once Silverado WDG Herbicide is fully dispensed, maintain agitation and continue filling the spray tank with water. It is important that Silverado WDG Herbicide is fully mixed with water prior to adding any other material.
- 5. As the spray tank is filling, add the required amount of spray adjuvant.
- 6. Continue agitation during herbicide application to ensure uniform spray coverage. If the mixture is not continuously agitated, settling may occur.

Silverado WDG Herbicide may settle if left standing without agitation. If the spray solution is allowed to stand for one hour or more, re-agitate the spray solution for a minimum of 10 minutes before application.

SECTION 12: SPRAYER CLEANUP

Before and after using Silverado WDG Herbicide, always complete a thorough cleaning of the spray tank, lines and filters. The following procedures are recommended:

- 1. Drain the tank completely, and then wash out tank, boom and hoses with clean water. Drain again.
- 2. Half fill the tank with clean water and add ammonia (i.e., 3% domestic ammonia solution) at a dilution rate of 1% (i.e., 1 litre of domestic ammonia for every 100 litres of rinsate). Complete filling of the tank with water. Agitate/recirculate and flush through boom and hoses. Leave agitation on for 10 minutes. Drain tank completely.
- 3. Repeat step 2.
- 4. Remove nozzles and screens and soak them in a 1% ammonia solution. Inspect nozzles and screens and remove visible residues.
- 5. Flush tank, boom, and hoses with clean water.
- 6. Inspect tank for visible residues. If present, repeat step 2.
- 7. Dispose of rinsate in accordance with provincial regulations.

SECTION 13: RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, Silverado WDG Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to Silverado WDG Herbicide and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. 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 herbicide resistance:

- 1. Where possible, rotate the use of Silverado WDG Herbicide or other Group 2 herbicides with different herbicide groups that control the same weeds in a field.
- 2. Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- 4. Monitor treated weed populations for resistance development.
- 5. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- 6. Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- 7. For further information or to report suspected resistance contact Bayer CropScience Inc. via internet at www.bayercropscience.ca or telephone at 1-888-283-6847.

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