

LIBERTY[®] [®]
200 SN HERBICIDE

GROUP	10	HERBICIDE
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**FOR SALE FOR USE ON GLUFOSINATE AMMONIUM TOLERANT
(LIBERTYLINK[®]) FIELD CORN IN CANADA AND
ON GLUFOSINATE AMMONIUM TOLERANT CANOLA AND SOYBEANS IN
EASTERN CANADA AND BRITISH COLUMBIA**

SOLUTION

COMMERCIAL



**CAUTION - SKIN IRRITANT
WARNING - EYE IRRITANT**

**REGISTRATION NUMBER: 25337
PEST CONTROL PRODUCTS ACT**

GUARANTEE: glufosinate ammonium 200 g/L

READ THE LABEL AND BOOKLET BEFORE USING

Product Information: 1-888-283-6847

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

**NET CONTENTS:
6 L - Bulk**

LIBERTY 200SN HERBICIDE

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For More Information, Contact:

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GENERAL INFORMATION

Section 1: The Product

- LIBERTY 200SN Herbicide provides control of a broad spectrum of grassy and broadleaf weeds in Canola varieties, Corn hybrids and Soybean varieties that are specially developed to be tolerant to glufosinate ammonium (for example LibertyLink® seeds).
- LIBERTY 200SN Herbicide may also be applied to glufosinate ammonium tolerant inbred Corn lines grown for seed production.
- For Canola hybrid seed production, LIBERTY 200SN Herbicide may be used to remove segregating wild type plants within the female population. See Section 7 (Crops, Weeds, Rates, Timing - Canola Hybrid Seed Production).

SAFETY AND HANDLING

Section 2: Precautions, Protective Clothing and Equipment, and, Re-entry Restrictions

PRECAUTIONS:

WARNING: EYE IRRITANT

CAUTION: POISON

CAUTION: SKIN IRRITANT

KEEP OUT OF REACH OF CHILDREN.

Avoid contact with eyes, skin or clothing.

Avoid breathing spray mist.

Wash thoroughly after using and before eating, drinking or smoking.

Protective Clothing and Equipment:

Wear protective clothing including a long-sleeved shirt, long pants, goggles, chemical resistant gloves, and respirator when handling or spraying.

Wear chemical resistant gloves for cleanup and repair.

Re-entry Restriction:

Workers should not enter treated fields within 24 hours of treatment. Workers who must enter fields within this time period should wear long-sleeved shirts, long pants and chemical resistant gloves.

If this 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 website at: www.croplife.ca.

Section 3: 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 on 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.

TOXICOLOGICAL INFORMATION:

Medical personnel should contact Bayer's medical information services toll-free 1-800-334-7577. **Note to Physician:** If this product is ingested, endotracheal intubation and gastric lavage should be performed as soon as possible, followed by charcoal and sodium sulfate administration.

Section 4: Environmental Hazards

TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under Directions for Use.

Do not contaminate water supplies, ponds, lakes, streams and irrigation ditches by direct application, spray drift or when cleaning and rinsing spray equipment or containers.

Avoid spray drift onto susceptible plants and USE ONLY FOR RECOMMENDED PURPOSES AND AT RECOMMENDED RATES.

Section 5: Storage

Cannot be stored below freezing.

If stored for 1 year or longer, shake well before using.

Store the tightly closed container away from feeds, seeds, fertilizers, plants and foodstuffs.

Do not use or store in or around the home.

Keep in original container during storage.

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

Refillable Container Disposal: For disposal, this empty 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 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, away from water supplies, ditches, and irrigation canals.

DIRECTIONS FOR USE

Section 7: Crops, Weeds, Rates, Timing

- Best control will be obtained when LIBERTY 200SN Herbicide is applied at the recommended leaf stages of the weeds.
- In Canola grown in Eastern Canada and British Columbia, apply LIBERTY 200SN Herbicide from the cotyledon to the early bolting stage of Canola.
- In Corn grown in Canada, apply LIBERTY 200SN Herbicide from the 1-8 leaf stage of the Corn plant or 5-6 visible collars (the leaf is counted once the next leaf is visible in the whorl).
- In Soybeans grown in Eastern Canada and British Columbia, apply LIBERTY 200SN Herbicide from the cotyledon to the flowering stage of the crop.

Crop	Weed	Recommended Time (Leaf Stage)								Rate		
		1	2	3	4	5	6	7	8			
CANOLA, CORN, and SOYBEANS tolerant to LIBERTY 200SN Herbicide	Crabgrass	-----								x	1.5 L/ha	
	Giant Foxtail	-----								x		
	Green Foxtail	-----								x		
	Proso Millet	-----								x		
	Chickweed	-----										x
	Cocklebur	-----				x						
	Ragweed	-----										x
	Redroot Pigweed	-----										x
	Shepherd's- purse	-----										x

Crop	Weed	Recommended Time (Leaf Stage)								Rate		
		1	2	3	4	5	6	7	8			
CANOLA, CORN, and SOYBEANS tolerant to LIBERTY 200SN Herbicide	Barnyard Grass	-----								x	2 L/ha	
	Bristly Foxtail	-----				x						
	Fall Panicum	-----								x		
	Old Witchgrass	-----								x		
	Wild Oats	-----								x		
	Yellow Foxtail	-----								x		
	Eastern Black Nightshade	-----								x		
	Lady's-thumb	-----										x
	Lamb's-quarters	-----										x
	Perennial Sowthistle	-----										x
	Ragweed	-----										x
	Stinkweed	-----										x
	Velvetleaf	-----										x
	Wild Buckwheat	-----										x
	Wild Mustard	-----										x
Wormseed Mustard	-----									x		

Canada Thistle and Field Bindweed: For season long suppression of Canada Thistle and Field Bindweed, apply LIBERTY 200SN Herbicide at a rate of 2 L/ha when the weeds are in the 1-6 leaf stage.

Quackgrass: For season long suppression of Quackgrass, apply LIBERTY 200SN Herbicide at a rate of 2.5 L/ha plus ammonium sulphate at a rate of 6 L/ha (49% solution) OR 3 kg/ha (99%) when the Quackgrass is in the 1-4 leaf stage.

Voluntary Crop Weeds: LIBERTY 200SN Herbicide will not control volunteer crop weeds that emerge from previous plantings of glufosinate ammonium tolerant crops.

ADDITIVES: For enhanced control of Velvetleaf, add ammonium sulphate to the tank at a

rate of 6 L/ha (49% solution) OR 3 kg/ha (99%).

SECOND APPLICATION: A second application of LIBERTY 200SN Herbicide can be made to fields treated initially with up to 2.5 L/ha if new weed germination or growth is present. Apply when the new weed growth is in the correct leaf stage and up to the maximum leaf stage of the crop.

Application after the 8 leaf stage of Corn must be made with drop nozzles as a directed spray below the whorl of the Corn plant.

Do not apply beyond the early bolting stage of Canola.

Do not apply beyond the flowering stage of Soybeans.

Do not apply more than a total of 4.5 L/ha in one season.

SPLIT APPLICATION PROGRAM: For season long control of the above listed weeds a split application program with LIBERTY 200SN Herbicide can be utilised. The first application must be a minimum of 2 L/ha and at the proper weed stage. For the second application, the rate of 1.25 L/ha may be utilized provided LIBERTY 200SN Herbicide is applied as soon as the second flush of weeds occurs and before the maximum leaf stage of the crop.

FOR CANOLA HYBRID SEED PRODUCTION - Two applications are required to remove the segregating wild type plants. The first application should occur when the Canola is in the 2-4 leaf stage, the second application when the Canola plants are in the 4-6 leaf stage and the third application, if necessary, may be applied to the Canola up until time of bolting. All applications of Liberty 200SN Herbicide for hybrid seed production should be made at 2.5 L/ha.

Section 8: Tank Mixes

Consult the label of the tank mix partner for further instructions regarding directions for use, restrictions and precautions. Certain tank mix partners may have additional restrictions for leaf staging.

For control of weeds present and/or control of later flushes of annual broadleaf weeds and/or annual grasses (see Tank Mix Directions), LIBERTY 200SN Herbicide may be tank mixed with the following herbicides when used in Eastern Canada and British Columbia:

CROP	TANK MIX PRODUCT	RATE	DIRECTIONS
CANOLA	Centurion [®] or Select [®] + Amigo Adjuvant at 0.5% v/v	63 mL/ha	For control of Volunteer Barley and improved control of Wild Oats, apply LIBERTY 200 SN Herbicide at a rate of 2.0 – 2.5 L/ha plus Centurion or Select at 63 mL/ha with adjuvant as recommended on the Centurion or Select label. Apply when the weeds are in the 1-4 leaf stage with a maximum of 2 tillers.

CORN	Aatrex® Nine-0	930 g - 1.24 kg/ha	Mix with the appropriate rate of LIBERTY 200SN Herbicide for the targeted weed species. Adjust Aatrex Nine-O rate to the level of residual activity desired. This tank mix will not control later flushes of triazine resistant weeds.
CORN	Atrazine® 500F*	1.68 - 2.24 L/ha	Mix with the appropriate rate of LIBERTY 200SN Herbicide for the targeted weed species. Adjust atrazine rate to the level of residual activity desired. This tank mix will not control later flushes of triazine resistant weeds.
CORN	Banvel®, Clarity®	625 mL/ha	Mix with the appropriate rate of LIBERTY 200SN Herbicide for the targeted weed species. This tank mix will provide enhanced control of annual broadleaf weeds.
CORN	Distinct®	285 g/ha	Mix with the appropriate rate of LIBERTY 200 SN Herbicide for the targeted weed species. This tank mix will provide enhanced control of labeled annual broadleaf weeds.
CORN	Marksman®	2.5 - 3.7 L/ha	Mix with the appropriate rate of LIBERTY 200SN Herbicide for the targeted weed species. Adjust Marksman rate to the level of residual activity desired. This tank mix will provide residual control of annual grasses and annual broadleaf weeds.
CORN	Prowl® 400 EC*	2.5 L/ha	Mix with the appropriate rate of LIBERTY 200SN Herbicide for the targeted weed species. This tank mix will provide residual control of annual grasses, Lamb's-quarters and Redroot Pigweed.
CORN	VIOS GS	110 mL/ha	Mix with the appropriate rate of LIBERTY 200SN Herbicide for the targeted weed species. This tank mix will provide residual control of annual grasses and annual broadleaf weeds.

SOYBEAN	Pursuit®	312 mL/ha	Mix with the appropriate rate of LIBERTY 200SN Herbicide for the targeted weed species. This tank mix will provide residual control of annual grasses and annual broadleaf weeds.
SOYBEAN	Basagran® Forte	1.75 L/ha	Mix with the appropriate rate of LIBERTY 200SN Herbicide for the targeted weed species. This tank mix will provide enhanced control of annual broadleaf weeds.

*for atrazine and Prowl products with different concentration, adjust the rate accordingly.

Note: Do not tank mix LIBERTY 200SN Herbicide with pesticides, fertilizers or any other chemical additives unless recommended on this label.

Section 9: Resistance Management Recommendations

For resistance management, LIBERTY 200SN Herbicide is a Group 10 herbicide. Any weed population may contain or develop plants naturally resistant to LIBERTY 200SN Herbicide and other Group 10 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:

- Where possible, rotate the use of LIBERTY 200SN Herbicide or other Group 10 herbicides with different herbicide groups that control the same weeds in a field.
- 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.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- 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.
- For further information or to report suspected resistance, contact your local Bayer representative, or call Bayer CropScience Inc. toll-free at 1-888-283-6847.

Section 10: Application Instructions and Cautions

Application Instructions:

- For best results, apply to emerged, young, actively growing weeds. Weeds that emerge after application will not be controlled.
- LIBERTY 200SN Herbicide will have an effect on weeds that are larger than the recommended leaf stage, however speed of activity and control may be reduced.
- Apply LIBERTY 200SN Herbicide in a minimum of 110 L/ha of water, at a pressure of 175-275 kPa and at a ground speed of 6-10 kph. The use of 80° or 110° flat fan nozzles is highly recommended for optimum spray coverage and canopy penetration.
- Application of the spray at a 45° angle forward will result in better spray coverage. Follow directions elsewhere on the label for the correct rate and timing of application.
- The speed of action of LIBERTY 200SN Herbicide is influenced by environmental factors. At cool temperatures (below 10°C), poor moisture and low humidity, speed of action may be reduced. Generally, visual symptoms appear 2-4 days after application.
- IF RAINFALL OCCURS WITHIN 4 HOURS OF APPLICATION, EFFECTIVENESS MAY BE REDUCED.
- Weed control may be reduced when heavy dew, fog or mist are present at the time of application.
- LIBERTY 200SN Herbicide works primarily as a contact herbicide. Thorough coverage of the weeds to be controlled is essential.

Application Cautions:

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

- **GROUND APPLICATION ONLY. DO NOT APPLY BY AIR**
- Do not use flood jet nozzles, controlled droplet application equipment or air-assisted spray equipment.
- Uniform, thorough spray coverage is important to achieve consistent weed control.
- DO NOT apply if winds exceed 16 kph when using open boom sprayers. DO NOT apply if winds exceed 25 kph when using hooded sprayers.
- Avoid contact with desirable plants or crops either from direct application or from spray drift as severe damage may occur.
- Plant back Intervals
 - 70 days for Buckwheat, Barley, Millet, Oats, Rye, Sorghum, Triticale and Wheat
 - 120 days for all other crops except Field Corn, Canola and Soybeans. No plant back interval is required for Field Corn, Canola or Soybeans.
- Application of LIBERTY 200SN Herbicide to non-tolerant crops will result in severe crop injury or death of the crop.
- **SUSCEPTIBLE WEEDS:** LIBERTY 200SN Herbicide has an effect on all weeds and crops except for those crops which are developed to be tolerant to applications of

LIBERTY 200SN Herbicide, including when they become voluntary weeds.

Buffer zones:

Use 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), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

Method of Application	Crop	Buffer Zones (metres) Required for the Protection of:		
		Freshwater Habitat of Depths:		Terrestrial Habitat
		Less than 1 m	Greater than 1 m	
Field Sprayer	Corn, Canola, Soybean	1	0	1

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

Section 11: Mixing Instructions
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LIBERTY 200SN Herbicide must be applied with properly calibrated, clean equipment. LIBERTY 200SN Herbicide is specially formulated to mix readily in water. Prior to adding LIBERTY 200SN Herbicide to the spray tank, ensure that the spray tank is thoroughly clean (see Section 12 “SPRAYER CLEANUP”).

1. Fill tank to three-quarters full with clean water prior to adding LIBERTY 200SN Herbicide.
2. Add the correct amount of LIBERTY 200SN Herbicide.
3. Add the remaining amount of water, begin agitation, and spray out immediately.

Note: With the exception of use with CENTURION or SELECT, when tank mixing LIBERTY 200SN Herbicide always add the tank mix partner to the tank first, ensure that it is thoroughly mixed, THEN add LIBERTY 200SN Herbicide. When using ammonium sulphate, ALWAYS add it to the tank first, prior to the addition of the tank mix partner and LIBERTY 200SN Herbicide. Refer to the following specific instructions for mixing with CENTURION or SELECT.

LIBERTY 200 SN Herbicide and CENTURION or SELECT: Glufosinate Ammonium Tolerant Canola only

When tank mixing LIBERTY 200 SN Herbicide and CENTURION or SELECT, always add AMIGO adjuvant to the tank first, *then* add LIBERTY 200 SN to the tank followed by the CENTURION or SELECT.

The addition of an anti-foaming agent may reduce foaming, especially when using soft water.

1. Thoroughly clean the sprayer by flushing the system with water containing detergent (see Section 12, “Sprayer Cleanup”).
2. Fill clean spray tank half full with clean water. Start agitation system.
3. Add the correct amount of AMIGO. Continue to agitate until AMIGO is thoroughly mixed.
4. STOP agitation. Add the required amount of LIBERTY 200 SN Herbicide and Crop Desiccant MP to the spray tank. Start agitation system.
5. Add the correct amount of CENTURION or SELECT along with the remaining amount of water necessary to fill the spray tank.
6. Continue to agitate or run the by-pass system, and spray out immediately.
7. After any break in the spraying operation, agitate thoroughly before spraying again. Check inside the tank to ensure that sprayer agitation is sufficient to remix the spray materials. Do not allow the mixture to sit overnight.
8. If an oil film starts to build up in the tank, drain it and clean tank with strong detergent solution.
9. Immediately after use, thoroughly clean the sprayer by flushing the system with water containing detergent (see Section 12, “Sprayer Cleanup”).

Note: The addition of an anti-foaming agent may reduce foaming, especially when using soft water.

Note: Ensure that all circuits (pipes, booms, etc.) have the correct LIBERTY 200SN Herbicide /water concentration before application is started.

Section 12: Sprayer Cleanup

Before and after using LIBERTY 200SN Herbicide always complete a thorough cleaning of the spray tank, lines and filter. Spray equipment should be thoroughly rinsed using a strong detergent solution.

Section 13: Livestock Feeding and Preharvest Intervals (PHIs)

CANOLA:

- Grain and meal from treated Canola can be fed to livestock.
- DO NOT graze or feed other portions of the treated Canola to livestock; there are not sufficient data to support such use.
- When LIBERTY 200SN Herbicide is tank mixed with CENTURION or SELECT, observe a PHI of 60 days from the date of treatment (or last treatment when a second application has been made).

CORN:

- DO NOT apply within 86 days of harvesting Corn grain.
- DO NOT graze the treated fields within 20 days of application.

SOYBEAN:

- DO NOT apply within 70 days of harvesting Soybean seed.
- DO NOT graze the treated fields within 20 days of application.

Section 14: 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. The user assumes the risk to persons or property that arises from any such use of this product.

FOR MORE INFORMATION CONTACT:

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