

08-MAY-2000

Notification Change

~~[logo]Aventis~~ **Bayer Cropscience Inc.**

LIBERTY(R) [plant logo](R)
150 SN Herbicide and Crop Desiccant - Commercial
PRAIRIE PROVINCES AND PEACE RIVER REGION OF BRITISH COLUMBIA
COMMERCIAL

WARNING[symbol] POISON

TRIPLE[symbol] RINSE

CAUTION: SKIN IRRITANT

WARNING: EYE IRRITANT

REGISTRATION NUMBER 26473

PEST CONTROL PRODUCTS ACT

GUARANTEE: glufosinate ammonium 150 G/L

Notification Change

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Calgary, AB T2Z 3X2**

READ THE LABEL BEFORE USING

13.5 L

LIBERTY 150 SN HERBICIDE AND CROP DESICCANT

<i>Table of Contents:</i>		<i>Section Number:</i>
GENERAL INFORMATION	The Product	1
SAFETY AND HANDLING	Precautions, Protective Clothing and Equipment	2
	First Aid and Toxicological Information	3
	Environmental Precautions and Information	4
	Storage	5
	Disposal	6

DIRECTIONS FOR USE POST EMERGENT USE	
Crops, Weeds, Timing, and Rates	7
Tank Mixes	8
DESICCATION USE	
Crops, Instructions and Rates	9
GENERAL INSTRUCTIONS	
Herbicide Resistance Management	10
Application Instructions and Cautions	11
Mixing Instructions	12
Sprayer Cleanup	13
Livestock Feeding and Preharvest Intervals	14
Notices	15

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GENERAL INFORMATION

Section 1: The Product

- LIBERTY 150 SN provides control of a broad spectrum of grassy and broadleaf weeds in Canola varieties and hybrids that are specially developed to be tolerant to glufosinate ammonium.
- LIBERTY 150 SN is registered for use on glufosinate ammonium tolerant Canola varieties or hybrids [example: varieties or hybrids labelled with LibertyLink(R) and the [plant symbol] symbol] .
- LIBERTY 150 SN may also be applied to glufosinate ammonium tolerant lines or varieties grown for seed production.
- LIBERTY 150 SN may be used as a harvest aid (desiccant) on Alfalfa grown for seed, Lentils and Potatoes.
- LIBERTY 150 SN will desiccate weeds that are present in the field at time of application when used as a harvest aid.

SAFETY AND HANDLING

Section 2: Precautions, Protective Clothing and Equipment

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. This product may cause eye irritation. 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 shirt, long pants and chemical resistant gloves.

Section 3: First Aid and Toxicological Information

FIRST AID: If medical attention is recommended, take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

Ingestion: If swallowed, rinse mouth thoroughly with plenty of water. DO NOT induce vomiting. Immediately contact a poison control centre, or take patient to hospital with this label.

Eye Contact: In case of eye contact, flush with plenty of water for 15 minutes. Immediately contact a poison control centre, or take patient to hospital with this label.

Skin Contact: In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water.

Inhalation: If inhaled, transfer individual from site of exposure.

TOXICOLOGICAL INFORMATION: Medical personnel should contact Aventis' 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 Precautions and Information

- . 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 to susceptible plants and USE ONLY FOR RECOMMENDED PURPOSES AND AT RECOMMENDED RATES.
- . **Ground Application:** Leave a 15 metre buffer between the edge of the treated field and adjacent crops not tolerant to LIBERTY 150 SN, or environmentally sensitive areas (for instance: wetlands, sloughs, ponds, rivers or other open bodies of water, shelterbelts or wildlife habitat).
- . **Aerial Application for Desiccation Only:** For the protection of non-target habitats overspray or drift to sensitive habitats should be avoided. Accordingly, the following buffer zone is required. Leave a buffer zone of 30 metres between the edge of the last spray swath and the edge of sensitive habitats including emergent vegetation surrounding wetlands (sloughs, ponds, prairie potholes, lakes, rivers and streams) and adjacent areas consisting of short, long and mixed grass prairie. Do not contaminate these habitats when cleaning and rinsing spray equipment or containers. If a 30 metre buffer zone cannot be maintained by aerial application, then apply by ground only.

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.

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

POST EMERGENCE USE

Section 7: Crops, Weeds, Timing, and Rates

CANOLA

- . LIBERTY 150 SN is registered for use on glufosinate ammonium tolerant Canola varieties or hybrids [example: varieties or hybrids labelled with LibertyLink(R) and the symbol [plant symbol]].
- . LIBERTY 150 SN may also be applied to glufosinate ammonium tolerant Canola lines or varieties grown for seed production.
- . **To assure crop safety and optimal herbicide performance, only use LIBERTY 150 SN on glufosinate tolerant (i.e., LibertyLink) Canola grown from certified seed.**
- . LIBERTY 150 SN is not registered for use on other glufosinate ammonium tolerant crops.
- . **Application of LIBERTY 150 SN to non-tolerant Canola varieties or hybrids or other non-tolerant crops will result in severe crop injury or death of the crop.**
- . Apply LIBERTY 150 SN from the cotyledon stage up to the early bolting stage of Canola.
- . Slight discoloration of the Canola may be visible after application. This effect is temporary and will not influence crop growth, maturity or yield.

SUSCEPTIBLE WEEDS: LIBERTY 150 SN has an effect on all weeds and crops except for those crops which are developed to be tolerant to applications of LIBERTY 150 SN. The following weeds are susceptible to application of LIBERTY 150 SN. Best control will be obtained when LIBERTY 150 SN is applied in the recommended leaf stages.

WEED	RECOMMENDED WEED LEAF STAGE								RATE
	1	2	3	4	5	6	7	8	
Cow Cockle	-----								1.33 L/ha
Green Foxtail	-----				-----				

WEED	RECOMMENDED WEED LEAF STAGE								RATE
	1	2	3	4	5	6	7	8	
Barnyard Grass	-----								2L/ha
Lady's Thumb	-----				-----				
Lamb's-quarters	-----								2L/ha
Russian Thistle	Up to 8 cm height								
Smartweed					-----				2L/ha
Stinkweed					-----				
Volunteer Canola	-----								2L/ha
Volunteer Flax	Up to 6 cm height								
Wild Mustard	-----								2L/ha

WEED	RECOMMENDED WEED LEAF STAGE								RATE
	1	2	3	4	5	6	7	8	
Canada Thistle ¹	Up to 10 cm height								2.67L/ha
Common Chickweed	-----				Leaf Pairs				
Hemp-nettle	-----				Leaf Pairs				2.67L/ha
Kochia	Up to 8 cm height								
Perennial Sow Thistle	-----								2.67L/ha
Quackgrass ¹	-----								
Redroot Pigweed	-----								2.67L/ha
Round-leaved mallow	-----								
Scentless Chamomile	Up to 10 cm height								2.67L/ha
Shepherd's-purse	-----								
Volunteer Barley ²	-----								Maximum 2 tillers
Volunteer Wheat	-----								Maximum 2 tillers
Wild Buckwheat	-----								2.67L/ha

WEED	RECOMMENDED WEED LEAF STAGE								RATE
	1	2	3	4	5	6	7	8	
Cleavers	-----		Whorls						3.33 L/ha
Dandelion	1-15 cm rosette								
Flixweed	Up to 10 cm height								3.33 L/ha
Hemp-nettle	-----		Leaf Pairs						
Quackgrass ³	-----								3.33 L/ha
Stork's Bill	-----								

Wild Oats -----| Maximum 2 tillers

WEED	RECOMMENDED WEED LEAF STAGE								RATE
	1	2	3	4	5	6	7	8	
									3.33 L/ha

Heavy Populations

Canada Thistle ¹	Up to 10 cm height								
Quackgrass ¹	-----								
Volunteer Barley ²	-----								Maximum 2 tillers
Volunteer Wheat	-----								Maximum 2 tillers
Wild Buckwheat	-----								

WEED	RECOMMENDED WEED LEAF STAGE								RATE
	1	2	3	4	5	6	7	8	
Canada Thistle ⁴	Up to 10 cm height								4 L/ha
Quackgrass ⁵	-----								

- ¹ Top Growth Suppression Only
- ² Suppression Only
- ³ Improved Top Growth Control
- ⁴ Better Top Growth Suppression
- ⁵ Season Long Control for Heavy Populations

SECOND APPLICATION

- . A second application of LIBERTY 150 SN can be made to fields treated initially with up to 3.33 L/ha if new weed germination or growth is present.
- . Do not apply more than 3.33 L/ha in the second application.
- . Apply when the new weed growth is in the correct leaf stage and up to early bolting stage of Canola.

Section 8: Tank Mixes

- . Consult the label of the tank mix partner for further directions for use, restrictions and precautions. Tank mix partners may have additional restrictions for leaf staging.
- . For enhanced activity LIBERTY 150 SN may be tank mixed with the following products.

CANOLA

TANK MIX PRODUCT	RATE	DIRECTIONS
Venture7 25 DG	100-200 g/ha	For control of Volunteer Barley, and heavy populations of Volunteer Wheat, apply LIBERTY 150 SN at a rate of 2.67 L/ha plus Venture 25 DG at 100-200 g/ha with adjuvant as recommended on the Venture 25 DG label. Apply when the weeds are in the 1-4 leaf stage with a maximum of 2 tillers.
Select	63 mL/ha	For control of Volunteer Barley and Wild Oats, apply LIBERTY 150 SN at a rate of 2.67-3.33 L/ha plus Select at 63 mL/ha with adjuvant as recommended on the Select label. Apply when the weeds are in the 1-4 leaf stage with a maximum of 2 tillers.

DESICCATION USE

Section 9: Crops, Instructions, and Rates

- . LIBERTY 150 SN may be used as a desiccant on Alfalfa (grown for seed), Lentils and Potatoes.
- . LIBERTY 150 SN will also desiccate weeds, which are present in the field at time of application (Wild Buckwheat may not be completely desiccated).
- . Desiccation of crops and weeds will be best when environmental conditions are favourable (warm temperatures, good moisture conditions, high humidity)

CROP	INSTRUCTIONS	RATE
ALFALFA (grown for seed)	Apply LIBERTY 150 SN at 50-75% pod turn (brown) stage. Do NOT apply more than once per year.	2.7 L/ha
LENTILS	Apply when the crop is in the 40-60% pod turn (yellow to brown) stage. LIBERTY 150 SN will provide complete Lentil plant drydown to facilitate straight combining, reducing the	2-2.7 L/ha

risks associated with adverse weather affecting the windrowed crop. Use the higher rate when the canopy is dense and/or there are higher populations of weeds present at

application.

Do NOT apply to Lentils grown for seed; sufficient data are not available to support such use.

POTATOES

Apply approximately 14-21 days prior to expected harvest.

LIBERTY 150 SN may be applied to promote uniform drydown of an unevenly maturing crop and will allow for planning of harvest timing.

Desiccation of vines and weeds will facilitate mechanical harvesting.

Do NOT apply to Potatoes grown for seed stock.

Note: Do NOT tank mix LIBERTY 150 SN with pesticides, fertilizers or chemical additives unless recommended on this label.

GENERAL INSTRUCTIONS

Section 10: Herbicide Resistance Management

To help prevent the potential development of resistant weed populations, LIBERTY 150 SN should be rotated with herbicides that have different modes of action, or used in conjunction with alternate cultural practices that are effective in controlling these weeds.

Section 11: Application Instructions and Cautions

Application Instructions:

GROUND APPLICATION:

- . Ensure that all circuits (pipes, booms etc.) have the correct LIBERTY 150 SN/water concentration before application is started.
- . Apply LIBERTY 150 SN in a minimum of 110 L/ha of water, at a pressure of 275 kPa and at a ground speed of 6-8 kph. If check valves are used, apply at 310 kPa.
- . The use of 80E or 110E flat fan nozzles is highly recommended for optimum spray coverage and canopy penetration.
- . For desiccation uses, where the crop canopy is dense or weed growth is heavy, achieve better spray coverage with higher spray volumes. Under these conditions, apply LIBERTY 150 SN in a minimum of 170-220 L/ha of water.
- . Application of the spray at a 45E 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 150 SN is influenced by environmental factors. At cool temperatures (below 10EC), poor moisture and low humidity, speed of action may be reduced. Generally, visual symptoms appear 2-4 days after application.
- . For best results, apply to emerged, young, actively growing weeds. Weeds that emerge after application will not be controlled.
- . LIBERTY 150 SN will have an effect on weeds that are larger than the recommended leaf stage, however speed of activity and control may be reduced.
- . LIBERTY 150 SN works primarily as a contact herbicide. Thorough coverage of the weeds to be controlled, or the crop to be desiccated, is essential.
- . LIBERTY 150 SN breaks down rapidly in the soil. There are no cropping or rotational restrictions after application.
- . When a rate range is given the higher rate should be utilized:
 1. when the weed or crop growth is dense;
 2. when the weeds are large and/or mature - i.e., advanced leaf stages and plant height;
 3. when the environmental conditions are cool and dry.
- . Refer to Section 7 for weeds controlled.

AERIAL APPLICATION FOR DESICCATION USE ONLY:

- . Exercise extreme caution during the aerial application of any insecticide, herbicide or fungicide. Drift of pesticides is not always visible with the human eye. Small droplets may drift into sensitive areas without obvious signs of danger. Follow these

directions precisely!

- . When applying LIBERTY 150 SN by aircraft, uniform spray coverage is essential. Applicators are required to use the correct combination of spray nozzle tips, nozzle placement and spray pressures which will provide a coarse droplet size distribution with a volume mean diameter greater than 350 microns. Do not use raindrop nozzles.
- . Apply LIBERTY 150 SN in 33-55 L/ha of water. Where crop canopy is dense, or weed growth is heavy, better spray coverage will be achieved with the higher spray volumes. Follow directions elsewhere on the label for the correct rate and timing of application.
- . Aerial drift is increased under certain meteorological conditions. DO NOT apply LIBERTY 150 SN by aircraft when the wind speed exceeds 12 kph.
- . For the protection of non-target habitats, overspray or drift to sensitive habitats should be avoided. Accordingly, the following buffer zone is required. Leave a buffer zone of 30 metres between the edge of the last spray swath and the edge of sensitive habitats, including emergent vegetation, surrounding wetlands (sloughs, ponds, prairie potholes, lakes, rivers, and streams), and adjacent areas consisting of short, long, and mixed grass prairie. Do not contaminate these habitats when cleaning and rinsing equipment or containers.
- . If the 30 metre buffer zone cannot be maintained during aerial application, then apply by ground only. For ground application do not apply within 15 metres of the edge of the treated area or environmentally sensitive areas.

Application Cautions

- . Weed control may be reduced when heavy dew, fog or mist is present at the time of application.
- . **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 for ground application.
- . DO NOT apply if winds exceed 25 kph when using hooded sprayer for ground application.
- . DO NOT apply by aircraft when the wind speed exceeds 12 kph.
- . LIBERTY 150 SN is a non-selective herbicide. Avoid contact with other desirable plants or crops by direct application or from spray drifts as severe damage may occur.
- . Crop injury may result if LIBERTY 150 SN is applied to a crop stressed by severe weather conditions, frost, drought, water-saturated soil, low fertility, disease or insect damage.
- . **Application of LIBERTY 150 SN to non-tolerant Canola varieties or hybrids or other non-tolerant crops will result in severe crop injury or death of the crops.**

- . To assure crop safety and optimal herbicide performance, only use LIBERTY 150 SN on glufosinate ammonium tolerant (i.e., LibertyLink) Canola grown from certified seed.

Rainfast Period

- . If rainfall occurs within 4 hours of application, effectiveness may be reduced.

Section 12: Mixing Instructions

- . LIBERTY 150 SN must be applied with properly calibrated, clean equipment.
- . LIBERTY 150 SN is specially formulated to mix readily in water.
- . Prior to adding LIBERTY 150 SN to the spray tank, ensure that the spray tank is thoroughly clean (see Section 13, "Sprayer Cleanup").
 1. Fill the tank three-quarters full with clean water.
 2. If tank mixing, start agitation or bypass system. Add the correct amount of the tank mix partner **first**.
 3. Add the correct amount of LIBERTY 150 SN.
 4. When tank mixing, add the tank mix partner's appropriate surfactant **last**.
 5. Add the remaining amount of water, begin agitation, and spray out immediately.

Note:

- . When tank mixing LIBERTY 150 SN always add the tank mix partner to the tank first, ensure that it is thoroughly mixed, **then** add the LIBERTY 150 SN.
- . The addition of an anti-foaming agent may reduce foaming, especially when using soft water.

Section 13: Sprayer Cleanup

- . Before and after using LIBERTY 150 SN always complete a thorough cleaning of the spray tank, lines, and filter. Spray equipment should be thoroughly rinsed using a strong detergent solution.

Section 14: Livestock Feeding and Preharvest Intervals

LIVESTOCK FEEDING:

Canola:

- . Grain and meal from treated crop can be fed to livestock.
- . Do not graze the treated crop or cut for hay; sufficient data are not available to support such use.

PREHARVEST INTERVALS

Canola:

- . When LIBERTY 150 SN is tank mixed with Venture 25 DG, observe a PHI of 80 days from the date of treatment (or last treatment when a second application has been made).
- . When LIBERTY 150 SN is tank mixed with Select, observe a PHI of 60 days from the date of treatment (or last treatment when a second application has been made).

Lentils:

- . Do not apply within 9 days of harvest.

Potatoes:

- . Do not apply within 9 days of harvest

Section 15: Notices

NOTICE TO USER: This control product is to be used only in accordance with the directions on this label. It is an offense under the Pest Control Products Act to use a control product under unsafe conditions.

NOTICE TO BUYER: Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

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FOR MORE INFORMATION CONTACT:

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