2022-3122
2022-07-29

GROUP 10 HERBICIDE

ClearUp GLUFOSINATE 150 SN

Herbicide
Solution

COMMERCIAL

WARNING

POISON

SKIN AND EYE IRRITANT

REGISTRATION NO. 34578
PEST CONTROL PRODUCTS ACT.

ACTIVE INGREDIENT: glufosinate ammonium 150 g/L

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING.

ADAMA Huifeng (Jiangsu) Ltd.
Add: Weier Road, South Area of Ocean Economic Development Zone,
Dafeng, Yancheng City, Jiangsu 224145, China
Tel: +86-515-8325 2118
Fax: +86-21-61257268
Email: Elva.zheng@adama.com

ADAMA Agricultural Solutions Canada Ltd.
300 – 191 Lombard Avenue
Winnipeg, Manitoba R3B 0X11
1-855-264-6262

NET CONTENTS: 1 – 1000 L

PRECAUTIONS:
KEEP OUT OF REACH OF CHILDREN. Causes skin and eye irritation. DO NOT get in eyes or on skin.
Avoid breathing spray mist. Wash thoroughly after using and before eating, drinking or smoking.
Protective Clothing and Equipment: Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes, and protective eyewear (goggles or face shield) during mixing, loading, application, clean-up and repair. Gloves and protective eyewear (goggles or face shield) are not required during application within a closed cab and/or cockpit.

When tank-mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.
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.

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. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.
If 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 treatment advice.

TOXICOLOGICAL INFORMATION:
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.

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

- 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.
- To prevent contamination, store this product away from food or feed.

DISPOSAL:
Recyclable Container Disposal (less than 23 litres):
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.

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.

2022-3122
2022-07-29

GROUP 10 HERBICIDE

ClearUp GLUFOSINATE 150 SN

Herbicide
Solution

COMMERCIAL

WARNING

POISON

SKIN AND EYE IRRITANT

REGISTRATION NO. 34578
PEST CONTROL PRODUCTS ACT.

ACTIVE INGREDIENT: glufosinate ammonium 150 g/L

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING.

ADAMA Huifeng (Jiangsu) Ltd.
Add: Weier Road, South Area of Ocean Economic Development Zone,
Dafeng, Yancheng City, Jiangsu 224145, China
Tel: +86-515-8325 2118
Fax: +86-21-61257268
Email: Elva.zheng@adama.com

ADAMA Agricultural Solutions Canada Ltd.
300 – 191 Lombard Avenue
Winnipeg, Manitoba R3B 0X11
1-855-264-6262

NET CONTENTS: 1 – 1000 L

GENERAL INFORMATION

- ClearUp GLUFOSINATE 150 SN **is a non-selective herbicide.**
- ClearUp GLUFOSINATE 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.
- ClearUp GLUFOSINATE 150 SN is registered for use on glufosinate ammonium tolerant Canola varieties or hybrids.
- ClearUp GLUFOSINATE 150 SN may also be applied to glufosinate ammonium tolerant lines or varieties grown for seed production.
- For hybrid seed production, ClearUp GLUFOSINATE 150 SN may be used to remove segregating wild type plants within the female population. Two applications are required to do this. A third application may be necessary if it is determined that the segregating wild type plants are not fully removed from the field.
- Glufosinate ammonium tolerant Corn can be used as separator rows in hybrid Canola seed production, but must be destroyed and not used for food or feed.
- ClearUp GLUFOSINATE 150 SN may be used as a harvest aid (desiccant) on Alfalfa grown for seed.
- ClearUp GLUFOSINATE 150 SN will desiccate weeds that are present in the field at time of application when used as a harvest aid.
- ClearUp GLUFOSINATE 150 SN may also be used for primocane control in established Raspberries.

For use in eastern Canada and British Columbia only:

- ClearUp GLUFOSINATE 150 SN may be used as a harvest aid (desiccant) in dry common beans.
- ClearUp GLUFOSINATE 150 SN will also desiccate weeds present in the field at application.
- ClearUp GLUFOSINATE 150 SN may also be used for annual and perennial weed control under fruit trees and Grape vines.
- When applied pre-emergent to the crop, but post-emergent to weeds, ClearUp GLUFOSINATE 150 SN may also be used on stale seedbed in vegetables.
- ClearUp GLUFOSINATE 150 SN breaks down rapidly in the soil.

SAFETY AND HANDLING

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. Causes skin and eye irritation. DO NOT get in eyes or on skin.

Avoid breathing spray mist. Wash thoroughly after using and before eating, drinking or smoking.

Protective Clothing and Equipment:

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

When tank-mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.
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.

DO NOT enter or allow worker entry into the treated areas during the restricted-entry interval (REI) of 24 hours.

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. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.
If 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 treatment advice.

TOXICOLOGICAL INFORMATION:
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.

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.

- 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.
- To prevent contamination, store this product away from food or feed.

DISPOSAL:
Recyclable Container Disposal (less than 23 litres):
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.

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.

POST EMERGENT USE
CANOLA
- ClearUp GLUFOSINATE 150 SN is registered for aerial and ground application to glufosinate ammonium tolerant Canola varieties or hybrids
- ClearUp GLUFOSINATE 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 ClearUp GLUFOSINATE 150 SN on glufosinate ammonium tolerant Canola grown from certified seed.**
- ClearUp GLUFOSINATE 150 SN is not registered for use on other glufosinate ammonium tolerant crops.

- **Application of ClearUp GLUFOSINATE 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 ClearUp GLUFOSINATE 150 SN from the cotyledon stage up until, but prior 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.
- **For 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, but prior to, the bolting stage. All applications of ClearUp GLUFOSINATE 150 SN for hybrid seed production should be made at 3.33 L/ha.

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

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

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

WEED	**RECOMMENDED WEED LEAF STAGE**								**RATE**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	2.67 L/ha
Canada Thistle[1]	Up to 10 cm height								
Common Chickweed	----------| Leaf Pairs								
Hemp-nettle	----------| Leaf Pairs								
Kochia	Up to 8 cm height								

Perennial Sow Thistle	----------|
Quackgrass[1]	----------|
Redroot Pigweed	----------|
Round-leaved Mallow	----------|
Scentless Chamomile	Up to 10 cm height
Shepherd's-purse	----------|
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	3.33 L/ha
Cleavers	----------| Whorls								
Dandelion	1-15 cm rosette								
Flixweed	Up to 10 cm height								
Hemp-nettle	----------| Leaf Pairs								
Quackgrass[3]	----------|								
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	4 L/ha
Canada Thistle[4]	Up to 10 cm height								
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 ClearUp GLUFOSINATE 150 SN can be made to fields treated initially with up to 4.0 L/ha if new weed germination or growth is present.
- A first application of up to 4 L/ha may be followed by a second application of up to 3.33 L/ha,

OR

A first application of up to 3.33 L/ha may be followed by a second application of up to 4 L/ha.

- **Do not apply more than a total of 7.33 L/ha per year**.
- Apply when the new weed growth is in the correct leaf stage and up until, but prior to, the bolting stage of Canola.

THIRD APPLICATION: (FOR HYBRID SEED PRODUCTION ONLY)

- Three applications of ClearUp GLUFOSINATE 150 SN, each at 3.33 L/ha, may be required for hybrid seed production. The third application must occur prior to bolting of the Canola crop.
- For best results, apply to emerged, young, actively growing weeds. Weeds that emerge after application will not be controlled.
- ClearUp GLUFOSINATE 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.

Use of Corn separator rows in hybrid Canola seed production

- ClearUp GLUFOSINATE 150 SN is registered for use on glufosinate ammonium tolerant Corn varieties or hybrids when used as separator rows.
- Corn should be seeded at 20,000 - 30,000 plants/ha.
- Row spacing for glufosinate ammonium tolerant Corn should be 18-23 cm.
- **Note:** Corn must be destroyed and not used for food or feed.

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.
- In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact *ADAMA Huifeng (Jiangsu)* at *1-855-264-6262* for information before mixing any pesticide or fertilizer that is not specifically recommended on this label.
- For enhanced activity ClearUp GLUFOSINATE 150 SN may be tank mixed with the following products:

CANOLA

TANK MIX PRODUCT	RATE	DIRECTIONS
Facet L + Merge	0.28 L/ha + 0.5 - 1.0 L/ha	For enhanced and more consistent control of cleavers, apply ClearUp GLUFOSINATE 150 SN at a rate of 3.33 L/ha plus Facet L at 0.28 L/ha. Apply in 100 L/ha of water with Merge Adjuvant at a rate of 0.5 to 1 L/ha. Application should be made from the 2 to 6 true leaf stage of the canola crop.

Note: Do not tank mix ClearUp GLUFOSINATE 150 SN with herbicides, fertilizers or chemical additives unless recommended on this label.

PRIMOCANE CONTROL IN RASPBERRY

- Apply ClearUp GLUFOSINATE 150 SN in a minimum of 330 L/ha of water. Use a combination of spray pressures and nozzles, which will provide small droplet sizes and thorough coverage.

CROP	RECOMMENDATIONS	RATE
RASPBERRY (established Raspberries only)	ClearUp GLUFOSINATE 150 SN is recommended for the control of primocanes in established Raspberries. Apply when shoots are about 10-20 cm in height. DO NOT apply to immature or weak plantings.	**BROADCAST RATE** 6.67 L/ha **BANDED RATE** Adjust the Broadcast application rate per hectare proportional to the width of the band applied. Use the formula to calculate the banded rate per hectare:
	FORMULA TO CALCULATE THE BANDED RATE PER HECTARE: Banded rate per hectare = (Band width ÷ Row width) x Broadcast Rate Example: 3.05 metre row spacing and 0.61 metre band width (0.61 M ÷ 3.05 M) x 6.67 L/ha = 1.33 L/ha band rate	

Caution: Avoid contact of the spray with desirable canes, plants and vegetation.

DESICCATION USE

Crops, Instructions and Rate

- ClearUp GLUFOSINATE 150 SN may be applied for desiccation, by ground or air, to Alfalfa (grown for seed).
- ClearUp GLUFOSINATE 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 ClearUp GLUFOSINATE 150 SN at 50-75% pod turn (brown) stage. Do NOT apply more than once per year.	2.7 L/ha

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

FOR USE IN EASTERN CANADA AND BRITISH COLUMBIA ONLY

DESICCATION USE

CROP	RECOMMENDATIONS	RATE
DRY COMMON BEANS (do not apply to Dry Common Beans grown for seed)	Apply when approximately 50-75% of the bean pods have naturally changed colour from green to yellow or brown (pod turn). The crop may be straight combined when ready, allowing a minimum of 9 days after application. ClearUp GLUFOSINATE 150 SN, when applied to Dry Common Beans at the appropriate stage, will uniformly dry down the crop and weeds, facilitating harvest and preventing bean staining. Any secondary growth will be terminated, and moisture levels in the seed will be reduced, allowing for earlier harvest.	2.5-3 L/ha[1]

[1]Use the higher rate when the crop canopy is dense and/or there are high populations of weeds present at application.

DO NOT APPLY BY AIR.

Note: ClearUp GLUFOSINATE 150 SN will also desiccate weeds present in the field at application (Wild Buckwheat may not be completely desiccated).

WEED CONTROL IN ORCHARDS AND VINEYARDS

CROP	RECOMMENDATIONS	RATE
APPLES GRAPES PEARS PLUMS	ClearUp GLUFOSINATE 150 SN is recommended for the control of weeds in established orchards and vineyards. ClearUp GLUFOSINATE 150 SN may be applied with ground (boom) spray equipment, high volume, orchard spray guns or handheld pump-type and backpack sprayers. For the specific weeds controlled by ClearUp GLUFOSINATE 150 SN, refer to the "Weed Control Information" Section Repeat treatments may be necessary to control new germination of annual weeds. Do not make more than 2 applications per year. Do not apply more than 6.7 L/ha total product in one season. Avoid contact of ClearUp GLUFOSINATE 150 SN solution, spray, drift or mist with green bark, stems, or foliage, as injury may occur to trees, vines or canes. Only trunks with callused, mature brown bark should be sprayed unless protected from spray contact by nonpourous wraps, tree/bark guards, grow tubes or waxed containers. Contact of ClearUp GLUFOSINATE 150 SN with parts of trees, vines or canes other than mature brown bark can result in serious damage. For control of weeds present and residual control of annual grass and broadleaf weeds, ClearUp GLUFOSINATE 150 SN may be tank mixed with Princep® NineT® or Simadex®.	**POWER AND/OR TRACTOR OPERATED SPRAYERS** Apply ClearUp GLUFOSINATE 150 SN at 2.7-5 L/ha for the control of annual grass and broadleaf weeds. Use as a directed spray around the base of the trees or vines. **HAND HELD PUMPTYPE AND BACKPACK SPRAYERS** Mix ClearUp GLUFOSINATE 150 SN at 27-50 mL of product per 10 litres of spray solution for the control of annual grass and broadleaf weeds. Use as a directed spray around the base of the trees or vines.

DO NOT APPLY BY AIR

WEED CONTROL IN VEGETABLES

ClearUp GLUFOSINATE 150 SN will control weeds that are contacted, and will have no effect on the crop if it has not yet emerged.
The seedbed should be prepared in sufficient time prior to seeding the crop, to allow weeds to emerge. The crop is seeded with a minimum of disturbance to the (stale) seedbed. Application of ClearUp GLUFOSINATE 150 SN may take place any time after initial cultivation of the seedbed up until emergence of the crop.

CROP	RECOMMENDATIONS	RATE
ASPARAGUS (stale seedbed, direct seeded)	ClearUp GLUFOSINATE 150 SN may be applied prior to emergence of Asparagus as a stale seedbed technique for annual grass and broadleaf weed control.	Apply ClearUp GLUFOSINATE 150 SN at 2.7-5 L/ha depending on the weeds present at application.
ASPARAGUS (established beds after harvest)	ClearUp GLUFOSINATE 150 SN may be applied after spears have been harvested.	
LETTUCE, ONIONS (stale seedbed)	ClearUp GLUFOSINATE 150 SN may be applied as a stale seedbed technique for annual grass and broadleaf weed control.	

DO NOT APPLY BY AIR

WEED CONTROL INFORMATION

2.7 – 4 L/ha:

- Common Chickweed, Green Foxtail, Lamb's-quarters, Stinkweed, Wild Mustard, Redroot Pigweed (use 4 L/ha).

4 – 5 L/ha:

- Dandelion, Oak-leaved Goosefoot, Wild Buckwheat

Rate Range:

- Where a rate range is given use the higher rate when:
    1. the crop or weed growth is dense.
    2. the weeds are large and/or mature.
    3. the environmental conditions are cool and dry.

Timing:

- For best results, apply to emerged, young actively growing weeds. Weeds that emerge after application will not be controlled.
- Apply before weeds reach a height of 30 cm.
- ClearUp GLUFOSINATE 150 SN will control weeds at all leaf stages, although coverage is more difficult when weeds are large or mature.
- Weeds will be best controlled when environmental conditions are favourable (warm temperatures, good moisture conditions, high humidity).

Tank Mixes

- Do not mix ClearUp GLUFOSINATE 150 SN with fertilizers or any other chemical additives unless recommended on this label.

APPLES AND PEARS (Bearing and Non-bearing Trees Established One Year or More)
USING POWER AND/OR TRACTOR OPERATED SPRAYERS:

Tank Mix Product	Application Rate	Directions
Princep Nine-T	2.5-5 kg/ha	Consult the Princep Nine-T and Simadex labels for further instructions regarding directions for use, restrictions, precautions and weeds controlled.
Simadex	4.5-9 L/ha	

USING HAND HELD PUMP-TYPE AND BACKPACK SPRAYERS:

Tank Mix Product	Application Rate	Directions
Princep Nine-T	25-50 g/10 L	Consult the Princep Nine-T and Simadex labels for further instructions regarding directions for use, restrictions, precautions and weeds controlled.
Simadex	45-90 mL/10 L	

GRAPES (Established Three Years or More) – Eastern Canada Only
USING POWER AND/OR TRACTOR OPERATED SPRAYERS:

Tank Mix Product	Application Rate	Directions
Princep Nine-T	4-5 kg/ha	Consult the Princep Nine-T and Simadex labels for further instructions regarding directions for use, restrictions, precautions and weeds controlled.
Simadex	7.2-9 L/ha	

USING HAND HELD PUMP-TYPE AND BACKPACK SPRAYERS:

Tank Mix Product	Application Rate	Directions
Princep Nine-T	40-50 g/10 L	Consult the Princep Nine-T and Simadex labels for further instructions regarding directions for use, restrictions, precautions and weeds controlled.
Simadex	72-90 mL/10 L	

GENERAL INSTRUCTIONS

Herbicide Resistance Management Recommendations

For resistance management, ClearUp GLUFOSINATE 150 SN is a Group 10 herbicide. Any weed population may contain or develop plants naturally resistant to ClearUp GLUFOSINATE 150 SN 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 ClearUp GLUFOSINATE 150 SN or other Group 10 herbicides within a growing season (sequence) or among growing seasons 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. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- 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 ADAMA Huifeng (Jiangsu) Ltd. at 1-855-264-6262.

Application Instructions and Precautions

APPLICATION INSTRUCTIONS:

- The speed of action of ClearUp GLUFOSINATE 150 SN is influenced by environmental factors. At cool temperatures (below 10° C), poor moisture and low humidity, the 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.
- ClearUp GLUFOSINATE 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. Better coverage will be achieved with higher spray volumes
- ClearUp GLUFOSINATE 150 SN works primarily as a contact herbicide. Thorough coverage of the weeds to be controlled, or the crop to be desiccated, is essential.
- ClearUp GLUFOSINATE 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.

Ground Application Instructions:

- Ensure that all circuits (pipes, booms etc.) have the correct ClearUp GLUFOSINATE 150 SN /water concentration before application is started.
- Apply ClearUp GLUFOSINATE 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 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. Refer to “Crops, Instructions and Rates” for the correct rate and timing of application.
- **For desiccation uses only**, where the crop canopy is dense or weed growth is heavy, achieve better spray coverage with higher spray volumes. Under these conditions, apply ClearUp GLUFOSINATE 150 SN in a minimum of 170-220 L/ha of water. Refer to Aerial Application for appropriate aerial water volumes.

Application Instructions for Weed Control in Orchards and Vineyards:
Power and Tractor-Operated Sprayers:
Apply ClearUp GLUFOSINATE 150 SN in 330-1100 L/ha of water. Apply at a spray pressure of 275-310 kPa using nozzles (flat fan, hollow, or cone) which provide small droplets and thorough coverage.

Hand Held Pump-Type and Backpack Sprayers:
Apply ClearUp GLUFOSINATE 150 SN in a water volume of 10 litres per 100 M^2 to provide thorough coverage, but not to the point of runoff. Ensure that spray pressures are maintained during application.

Application Instructions for Weed Control in Vegetables:
Apply ClearUp GLUFOSINATE 150 SN in a minimum of 110-330 L/ha of water. Apply at a spray pressure of 275-310 kPa using nozzles (flat fan, hollow, or cone) which will provide small droplets and thorough coverage.

Aerial Application Instructions:

- Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.
- Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.
- 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 ClearUp GLUFOSINATE 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. To avoid streaked, uneven or overlapped application, use appropriate marking devices.
- **Post-emergent Use in Glufosinate Ammonium tolerant canola Water Volume:** Apply ClearUp GLUFOSINATE 150 SN in a minimum of 55 L/ha of water only.
- **Desiccation Use Only Water Volume Range:** If the crop canopy is dense or weed growth is heavy, achieve better spray coverage with higher spray volumes. Under these conditions, if using aerial application, apply ClearUp GLUFOSINATE 150 SN in a minimum of 33- 55 L/ha of water.

APPLICATION PRECAUTIONS

- Weed control may be reduced when heavy dew, fog or mist is present at the time of application.
- Uniform, thorough spray coverage is important to achieve consistent weed control.
- Crop injury may result if ClearUp GLUFOSINATE 150 SN is applied to a crop stressed by severe weather conditions, frost, drought, water-saturated soil, low fertility, disease or insect damage.
- ClearUp GLUFOSINATE 150 SN is a non-selective herbicide and has the potential to desiccate, defoliate or kill all green plants. Avoid contact with other desirable plants or crops by direct application or from spray drifts as severe damage may occur.
- **Application of ClearUp GLUFOSINATE 150 SN to non-tolerant Canola varieties, 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 ClearUp GLUFOSINATE 150 SN on glufosinate ammonium tolerant Canola grown from certified seed.**

Ground Application Precautions:

- 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.

- 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 use flood jet nozzles, controlled droplet application equipment or air-assisted spray equipment.

Aerial Application Precautions:

- 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) coarse classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wingspan or rotorspan.
- Read and understand the entire label before opening this product. If you have questions, call ADAMA Huifeng (Jiangsu) Ltd. at 1-855-264-6262 or obtain technical advice from the distributor or your provincial agricultural representative.

Aerial Application Operator Precautions:

- DO NOT allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.
- It is desirable that the pilot have communication capabilities at each treatment site at the time of application.
- The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.
- All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Rainfast Period:

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

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:		
		Freshwater Habitat of Depths:		Terrestrial Habitat
		Less than 1 m	Greater than 1 m	
Field Sprayer	Alfalfa, Canola, Corn, Raspberry, Apple, Asparagus, Dry common beans, Grape, Lettuce, Onion, Pear, Plum,	1	0	1
Aerial (fixed wing and rotary)	Alfalfa	1	0	20
	Canola	1	0	30

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

Mixing Instructions

- ClearUp GLUFOSINATE 150 SN must be applied with properly calibrated, clean equipment.
- ClearUp GLUFOSINATE 150 SN is specially formulated to mix readily in water.
- Prior to adding ClearUp GLUFOSINATE 150 SN to the spray tank, ensure that the spray tank is thoroughly clean "Sprayer Cleanup".
    1. Fill the tank three-quarters full with clean water.
    2. Add the correct amount of ClearUp GLUFOSINATE 150 SN.
    3. Add the remaining amount of water, begin agitation, and spray out immediately.

TANK-MIXES:

Note: When tank mixing ClearUp GLUFOSINATE 150 SN always add the tank mix partner to the tank first, ensure that it is thoroughly mixed, and then add ClearUp GLUFOSINATE 150 SN.

When using a tank-mix partner ***always*** consult the respective product label for further precautionary and application information.

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

Sprayer Cleanup

- Before and after using ClearUp GLUFOSINATE 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.

PLANT BACK INTERVALS

- No plantback interval is required for field corn, canola, soybeans, dry common beans (not grown for seed), alfalfa, carrot, lettuce, onion and potato.
- 70 days for buckwheat, barley, millet, oats, rye, sorghum, triticale, wheat, other root and leafy vegetables.
- 120 days for all other crops.

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.

Corn (used as separator rows in Hybrid Canola Seed Production):

- Do not feed treated crop to livestock; sufficient data are not available to support such use.

Dry common beans:

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

PRE-HARVEST INTERVALS

Canola:
When ClearUp GLUFOSINATE 150 SN is tank mixed with Facet L, observe a PHI of 60 days from the date of treatment.

Dry Common Beans: 9 days

Plums: 14 days

Apples, Grapes, Pears: 40 days

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.