

2023-03-14
2023-0122
Container Label



VIKING™ Florasulam Herbicide

GROUP	2	HERBICIDE
-------	---	-----------

SUSPENSION

COMMERCIAL (AGRICULTURAL)

FOR SALE FOR USE IN THE PRAIRIE PROVINCES AND THE INTERIOR OF BRITISH COLUMBIA (INCLUDING THE PEACE RIVER REGION) ONLY

VIKING Florasulam Herbicide is a selective herbicide for postemergent control or suppression of annual broadleaf weeds including cleavers, wild buckwheat and chickweed in spring wheat (including durum), winter wheat, spring barley, and oats (tank mixes only).

REGISTRATION NO. 34752 PEST CONTROL PRODUCTS ACT

ACTIVE INGREDIENT: florasulam 50 g/L.

Contains sodium benzoate as a preservative at 0.1% OR
Contains 1,2-benzisothiazolin-3-one as a preservative at 0.1%

NET CONTENTS: 0.8 L – 1020 L

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

CAUTION



POISON

MAY CAUSE SLIGHT EYE IRRITATION

In case of emergency call the 24 hour Emergency Response Number 1-800-424-9300 or 1-703-527-3887

Viking Crop Production Partners Inc.

Box 18033

RPO Shawnessy

Calgary, AB. T2Y 0K3

1-587-743-1029

Viking (TM) is a trademark of Viking Crop Production Partners Inc.

PRECAUTIONS:

**MAY CAUSE SLIGHT EYE IRRITATION.
KEEP OUT OF REACH OF CHILDREN.
DO NOT APPLY BY AIR.**

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

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Apply only to agricultural crops when the potential for drift to areas of human habitation and 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.

At completion of spraying or end of the day: Take a shower immediately. Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing at the end of the work session and store and wash separately from household laundry using detergents and hot water before reuse.

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 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.

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.

TOXICOLOGICAL INFORMATION

No specific antidote. Employ supportive care. Treatment should be based on judgment of the physician in response to reactions of the patient. Treat symptomatically.

AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

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.
- This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

STORAGE

Store this product away from food or feed. Store in original containers in a secure, dry heated storage **VIKING Florasulam Herbicide** will freeze at -10°C. If product is frozen, bring to room temperature and agitate before use. Do not allow contamination of seeds, plants, fertilizers or other pesticides. Do not contaminate food, feedstuffs or domestic water supplies. If containers are damaged or spill occurs, use the product immediately or contain the spill with absorbent materials and dispose of waste.

DISPOSAL

Recyclable Containers:

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.

Refillable Containers:

For disposal, this 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.

Returnable Containers:

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

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 any way that is inconsistent with the directions on the label.

Booklet Label



VIKING™ Florasulam Herbicide

GROUP	2	HERBICIDE
-------	---	-----------

SUSPENSION

COMMERCIAL (AGRICULTURAL)

FOR SALE FOR USE IN THE PRAIRIE PROVINCES AND THE INTERIOR OF BRITISH COLUMBIA (INCLUDING THE PEACE RIVER REGION) ONLY

VIKING Florasulam Herbicide is a selective herbicide for postemergent control or suppression of annual broadleaf weeds including cleavers, wild buckwheat and chickweed in spring wheat (including durum), winter wheat, spring barley, and oats (tank mixes only).

REGISTRATION NO. 34752 PEST CONTROL PRODUCTS ACT

ACTIVE INGREDIENT: florasulam 50 g/L.

Contains sodium benzoate as a preservative at 0.1% OR
Contains 1,2-benzisothiazolin-3-one as a preservative at 0.1%

NET CONTENTS: 0.8 L – 1020 L

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

CAUTION



POISON

MAY CAUSE SLIGHT EYE IRRITATION

In case of emergency call the 24 hour Emergency Response Number 1-800-424-9300 or 1-703-527-3887

Viking Crop Production Partners Inc.

Box 18033
RPO Shawnessy
Calgary, AB. T2Y 0K3
1-587-743-1029

Viking (TM) is a trademark of Viking Crop Production Partners Inc.

PRECAUTIONS

MAY CAUSE SLIGHT EYE IRRITATION KEEP OUT OF REACH OF CHILDREN

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

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Apply only to agricultural crops when the potential for drift to areas of human habitation and 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.

At completion of spraying or end of the day: Take a shower immediately. Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing at the end of the work session and store and wash separately from household laundry using detergents and hot water before reuse.

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 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.

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.

TOXICOLOGICAL INFORMATION

No specific antidote. Employ supportive care. Treatment should be based on judgment of the physician in response to reactions of the patient. Treat symptomatically.

AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

ENVIRONMENTAL PRECAUTIONS

- TOXIC to aquatic organism 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.
- This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

STORAGE

Store this product away from food or feed. Store in original containers in a secure, dry heated storage. **VIKING Florasulam Herbicide** will freeze at -10°C. If product is frozen, bring to room temperature and agitate before use. Do not allow contamination of seeds, plants, fertilizers or other pesticides. Do not contaminate food, feedstuffs or domestic water supplies. If containers are damaged or spill occurs, use the product immediately or contain the spill with absorbent materials and dispose of waste.

DISPOSAL

Recyclable Containers:

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.

Refillable Containers:

For disposal, this 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.

Returnable Containers:

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

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.

GENERAL INFORMATION

VIKING Florasulam Herbicide is a selective postemergence herbicide for the control or suppression of hard-to-kill annual broadleaf weeds such as chickweed, wild buckwheat and cleavers in spring wheat (including durum), winter wheat, spring barley, and oats (tank mixes only) not underseeded with legumes. **VIKING Florasulam Herbicide** is mixed with water and applied as a uniform broadcast spray. It is non-corrosive, nonflammable, and nonvolatile.

VIKING Florasulam Herbicide must be applied early postemergence, to the main flush of actively growing broadleaf weeds. Warm, moist growing conditions promote active weed growth and enhance the activity of **VIKING Florasulam Herbicide** by allowing maximum foliar uptake and contact activity. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and re-growth may occur. For best results, ensure thorough spray coverage of target weeds. See "DIRECTIONS FOR USE" section of this label for complete use details.

VIKING Florasulam Herbicide stops growth of susceptible weeds rapidly. However, typical symptoms (discolouration) of dying weeds may not be noticeable for 1 to 2 weeks after application, depending upon growing conditions and weed susceptibility. Degree of control and duration of effect are dependent upon weed sensitivity, weed size, crop competition, growing conditions at and following treatment, and spray coverage.

MODE OF ACTION

VIKING Florasulam Herbicide inhibits the production of the ALS enzyme in plants. This enzyme is essential for the production of certain amino acids which are essential for plant growth. **VIKING Florasulam Herbicide** is a Group 2 mode of action herbicide.

GENERAL USE PRECAUTIONS

Sensitive Plants

Do not apply **VIKING Florasulam Herbicide** directly to, or otherwise permit it to come in direct contact with susceptible crops or desirable plants including alfalfa, edible beans, canola, flowers and ornamentals, lentils, lettuce, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tomatoes or tobacco.

Non-Target Sites

Do not apply where proximity of susceptible crops (e.g. canola and legumes) or other desirable plants is likely to result in exposure to spray or spray drift. See Environmental Precautions section of the label.

Crop Rotation

Fields previously treated with **VIKING Florasulam Herbicide** can be seeded the following year to barley, canola, chickpeas, corn, field beans, flax, Juncea canola, lentils, mustard (brown, oriental and/or yellow), oats, peas, potatoes (except seed potatoes), soybeans, sunflower, wheat or fields can be summerfallowed.

Do not use in successive years at the same site. This product has potential to leach. Do not apply excessive irrigation.

Tank Mixtures

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Viking Crop Production Partners Inc. at 1-587-743-1029 for information before applying any tank mix that is not specifically recommended on this label.

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.

Spray Equipment Precaution

Do not apply through any type of irrigation system.

DO NOT APPLY BY AIR.

To Reduce Spray Drift:

1. Use nozzles delivering higher volumes and coarser droplets.
2. Use low pressures (200 to 275 kPa).
3. Use 100 L/ha of spray solution.
4. Spray when the wind velocity is 15 km/hr or less.
5. Spot treatments should only be applied with a calibrated boom to prevent over-application.

Sprayer Clean-Out Instructions

To avoid injury to desirable plants, thoroughly clean equipment used to apply this product before re-use or using it to apply other chemicals.

1. Immediately after spraying, completely drain the sprayer tank. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
2. First rinse:
 - Spray the inside of tank with clean water and fill the sprayer with at least one tenth of the spray tank volume.
 - Agitate and circulate for 15 minutes, and flush through booms and hoses.
 - Remove end caps or open ball valves on the ends of each boom section, and flush solution through the boom ends to ensure there is no spray solution trapped between the boom end and the nozzles.
 - Drain tank completely.
3. Second rinse:
 - Fill the tank with clean water.
 - Add All Clear Spray Tank Decontaminator, or Clean-Out Spray Tank Cleaner, or 1 L of household ammonia (containing a minimum of 3 % ammonia) per 100 L of water, or similar tank cleaning agent as per manufacturer's recommendations while filling the tank with clean water.
 - Agitate and then flush the boom and hoses with the cleaning solution. Top up with water making sure the tank is completely full. Allow to stand for 15 minutes with agitation. Flush the solution out of the spray tank through the spray booms. Remove end caps or open ball valves on the ends of each boom section, and flush solution through the boom ends to ensure there is no spray solution trapped between the boom end and the nozzles.
 - If possible, let the solution stand in the sprayer tank and booms for an extended period of time, overnight if possible.
 - After flushing the boom and hoses, drain tank completely.
 - Remove nozzles and screens and clean separately with a cleaning agent or an ammonia solution (100 mL in 10 L water).
4. Third rinse:
 - Rinse the tank with clean water and flush through the boom and hoses using at least one tenth of the spray tank volume.
 - Remove end caps or open ball valves on the ends of each boom section, and flush solution through the boom ends to ensure there is no spray solution trapped between the boom end and the nozzles.
 - Drain tank completely.

Do not use ammonia with chlorine bleach. Using ammonia with chlorine bleach will release a gas with a musty odour which may cause eye, nose, throat and lung irritation. Do not clean equipment in an enclosed area.

GENERAL DIRECTIONS FOR USE

READ THE ENTIRE LABEL BEFORE USE. FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC WEED CONTROL OR CROP DAMAGE. DO NOT APPLY TO CROPS UNDERSEEDDED WITH LEGUMES.

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

Aerial application: **DO NOT** apply using aerial application equipment.

SPRAY BUFFER ZONES

Spot treatments using hand-held equipment do not require a spray buffer zone.

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

Crop	Method of application	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 (medium)	1	0	3

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 that are larger than 1m can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticide portion of the Canada.ca web site.

VIKING FLORASULAM HERBICIDE ALONE

Crops Registered: Spring wheat (including durum), winter wheat and spring barley

Application Directions

Apply 100 mL of **VIKING Florasulam Herbicide** per hectare in a minimum of 100 L of water per hectare. Add Agral 90 at 0.2% v/v. See weeds species controlled under “Weeds Controlled or Suppressed by **VIKING Florasulam Herbicide** Alone at 100 mL/ha.” Apply to actively growing wheat and barley from the 2 to 6 leaf stage. Apply when weeds are actively growing. Only weeds emerged at the time of treatment will be controlled. Best results are obtained from applications made to seedling weeds.

Application Timing

Apply to actively growing weeds in the 2-4 leaf stage. Extreme growing conditions such as drought or near freezing temperature prior to, at or following time of application may reduce weed control and increase the risk of crop injury at all stages of growth. Only weeds which are emerged at the time of application will be affected. If foliage is wet at the time of application control may be decreased. Under conditions of low crop and high weed density, control may be reduced.

Weeds Controlled or Suppressed by VIKING Florasulam Herbicide alone at 100 mL/ha

Weeds Controlled:

buckwheat, wild	cleavers	shepherd's purse
canola, volunteer♦	cow cockle	smartweed
chickweed, common	mustard, wild	stinkweed

♦ Including herbicide-tolerant canola varieties except Clearfield canola.

Weeds Suppressed:

hemp-nettle	pigweed, redroot	sowthistle, perennial♦
narrow-leaved hawk's beard	sowthistle, annual	

♦ Applications made at advanced leaf stages will reduce product effectiveness.

Mixing Instructions

1. Fill sprayer tank 1/2 full of water.
2. Start sprayer tank agitation.
3. Add the required amount of **VIKING Florasulam Herbicide**.
4. Fill the sprayer tank with sufficient water to spray 100 L of spray mixture per hectare.
5. Add Agral 90 as the last ingredient at the rate of 0.2% v/v (2 L per 1000 L of spray volume).
6. Follow sprayer directions and precautions as outlined above, especially when applying next to sensitive crops (e.g. canola and legumes).
7. Follow sprayer clean-up directions.

Preharvest/Grazing Intervals

Livestock may be grazed on treated crops 7 days following application. Do not harvest the treated crop within 60 days after application.

TANK-MIX COMBINATION – VIKING FLORASULAM HERBICIDE + AXIAL® 100EC HERBICIDE

For control of annual grasses (see table below) tank mix **VIKING Florasulam Herbicide** with Axial 100EC Herbicide. Refer to the above table for broadleaf weeds controlled or suppressed with VIKING Florasulam Herbicide.

Tank-Mix Combinations with VIKING Florasulam Herbicide for Annual Grass Control

Tank-Mix Partner	Crops Registered	Rate/ha	Adjuvant and Rate	Additional Weeds Controlled
Axial 100 EC Herbicide	spring wheat spring barley	600 mL	Adigor® 700 mL/ha	wild oats, green foxtail♦ yellow foxtail, barnyard grass, volunteer oats, volunteer canary seed, proso millet

♦ Reduction in control of green foxtail may be observed when tank mixed with Axial 100EC Herbicide.

To control additional broadleaf weeds, MCPA Ester may be added to either tank mix up to a maximum of 420 g ae/ha (equivalent to 840 mL/ha of MCPA LV500). Refer to the MCPA Ester tank mix partner label for rates less than 420 g ae/ha and weed controlled.

Mixing Instructions

1. Begin to fill sprayer tank with clean water, and engage agitator. **Agitation must be continued throughout the entire mixing and spraying procedure.**
2. When the sprayer is three quarters full of water, add **VIKING Florasulam Herbicide** and agitate for 2-3 minutes.

3. If 2,4-D Ester, MCPA Ester or Curtail™ M are also being added, add these next.
4. Add Axial 100EC Herbicide Agitate for 2-3 minutes.
5. Add required Adjuvant.
6. Agitate for 1-2 minutes before adding remainder of water and then maintain constant agitation.
7. After any break in spraying operations, agitate thoroughly before spraying again.
8. **Use the spray suspension as soon as it is prepared.** 9. If an oil film starts to build up in the tank, drain tank and then clean as directed on this label.

TANK MIX COMBINATION - VIKING FLORASULAM HERBICIDE + MCPA ESTER HERBICIDE

Crops Registered: Spring wheat (including durum), winter wheat, spring barley, and oats

Application Directions

For control of a wide spectrum of broadleaf weeds apply **VIKING Florasulam Herbicide** at 100 mL/ha tank mixed with MCPA Ester Herbicide at 350 g ae/ha (e.g., MCPA LV 500 at 0.70 L/ha) in 100 L per hectare of water. Apply to actively growing wheat, barley, and oats from the 2 to 6 leaf stage.

Apply when weeds are actively growing. Only weeds emerged at the time of treatment will be controlled. Best results are obtained from applications made to seedling weeds.

Weeds Controlled or Suppressed by the Tank Mixture of VIKING Florasulam Herbicide + MCPA Ester Herbicide

Weeds Controlled

buckwheat, wild	hemp-nettle◆◆◆	ragweed, common
burdock◆◆	lamb's quarters	shepherd's purse
canola, volunteer◆	mustard, ball	smartweed
chickweed, common	mustard, wild	stinkweed
cleavers	pigweed, redroot◆◆◆	sunflower, annual◆◆
cow cockle	pigweed, Russian◆◆	
flixweed (spring rosettes only)	prickly lettuce◆◆	

Weeds Suppressed:

Dandelion (seedlings and overwintered rosettes less than 15 cm)◆◆◆		
Plantain (top growth)	sowthistle, perennial	thistle, Canada◆◆◆
sowthistle, annual	storks bill◆◆◆	narrow-leaved hawk's-beard

◆ Including herbicide-tolerant canola varieties

◆◆ Up to 4 leaf stage

◆◆◆ Optimum control can be achieved with the addition of 70 g ae/ha of MCPA Ester Herbicide

Mixing Instructions

1. Fill sprayer tank 1/2 full of water.
2. Start sprayer tank agitation.
3. Add the required amount of **VIKING Florasulam Herbicide**
4. Add the correct amount of MCPA Ester Herbicide and continue to agitate.
5. Fill the sprayer tank with sufficient water to spray 100 L of spray mixture per hectare.
6. Follow sprayer directions and precautions as outlined above, especially when applying next to sensitive crops (e.g. canola and legumes).
7. Follow sprayer clean-up directions.

Note: Do not add a surfactant to this tank mixture.

Pre-Harvest/Grazing Intervals (VIKING Florasulam Herbicide + MCPA Ester Herbicide)

1. Do not cut the treated crop for hay or graze treated crop within 7 days after application.
2. Do not harvest the treated crop within 60 days after application.

TANK-MIX COMBINATIONS - VIKING FLORASULAM HERBICIDE + MCPA ESTER HERBICIDE + OTHER HERBICIDES

Crops Registered: Spring wheat (including durum) and spring barley.
Do not apply these tank mixes to oats.

Application Directions

Tank mixtures of **VIKING Florasulam Herbicide** + MCPA Ester Herbicide with other herbicides will provide control of broadleaf weeds and specified annual grasses. Apply to actively growing wheat and barley from the 2 to 6 leaf stage. Apply when weeds are actively growing. Only weeds emerged at the time of treatment will be controlled. Best results are obtained from applications made to seedling weeds.

Tank-Mix Combinations with VIKING Florasulam Herbicide + MCPA Ester Herbicide + Other Herbicides

Herbicide Tank-Mix Partner	Crops Registered	Rate (Product/ha)	Adjuvant and Rate	Additional Weeds Controlled
Assert® 300 SC Herbicide	wheat (spring & durum), spring barley	1.6 L	Refer to Assert 300 SC Herbicide label	wild oat
Everest® 2.0 Herbicide ♦†	Wheat (spring & durum)	36-72 mL/ha	Non-ionic surfactant (see label) 0.25% v/v	Wild oat and green foxtail
Simplicity™	wheat (spring & durum)	500 mL	Not required	Wild oat, barnyard grass, Japanese brome, hemp-nettle♦♦, redroot pigweed♦♦
Axial 100EC Herbicide	spring wheat, spring barley	600 mL	Adigor 700 mL/ha	Wild oats, green foxtail♦♦♦, yellow foxtail, barnyard grass♦♦♦, volunteer oats, volunteer canary seed, proso millet

† For conditions for when to use the higher rates, refer to the Everest 2.0 Herbicide label.

♦ Wheat (including durum) exposed to water-logged or saturated soils, or temperature extremes such as heat or freezing weather, or drought, low fertility or plant disease at application time could show unacceptable injury symptoms. Weed control may also be reduced by these same conditions.

♦♦ Additional MCPA not required

♦♦♦ Suppression only of green foxtail and reduction in barnyard grass control may be observed.

Mixing Instructions

1. Fill sprayer tank 1/2 full of water.
2. Start sprayer tank agitation.
3. Add **VIKING Florasulam Herbicide** (see Notes 2 and 3 below).
4. Add MCPA Ester Herbicide and continue to agitate.
5. Add the required amount of tank mix partner and continue to agitate.
6. Fill the sprayer tank with sufficient water to spray 100 L of spray mixture per hectare.
7. Follow sprayer directions and precautions as outlined above, especially when applying next to sensitive crops (e.g. canola and legumes).
8. Follow sprayer clean-up directions.

Note 1: Add only the adjuvant recommended above. Follow tank-mix partner label for order of mixing and any specific instructions for mixing.

Note 2: When using Assert 300 SC Herbicide, add tank mix partners in the following order: VIKING Florasulam Herbicide, Spray Water pH Adjuster, Assert 300 SC Herbicide, MCPA Ester Herbicide.

Note 3: When using Everest 2.0 Herbicide add tank mix partners in the following order: Everest 2.0 Herbicide, tank mix partner, adjuvant.

TANK MIX COMBINATION - VIKING FLORASULAM HERBICIDE + CURTAIL M HERBICIDE

Crops Registered: Spring wheat (including durum), spring barley, and oats

Application Directions

For control of a wide spectrum of annual broadleaf weeds plus Canada thistle and perennial sowthistle, apply **VIKING Florasulam Herbicide** at 100 mL/ha tank mixed with 1.5 L/ha of Curtail M Herbicide in 100 L per hectare of water. Apply to actively growing wheat, barley, and oats from the 2 to 6 leaf stage. Apply when weeds are actively growing. Only weeds emerged at the time of treatment will be controlled. Best results are obtained from applications made to seedling weeds.

Weeds Controlled or Suppressed by the Tank Mixture of **VIKING Florasulam Herbicide** + Curtail M Herbicide

Weeds Controlled:

buckwheat, wild	hemp-nettle	Smartweed
canola, volunteer♦	lamb's quarters	sowthistle, perennial (top growth only)♦♦
chickweed, common	mustard, wild	sowthistle, annual
cleavers	narrow-leaved hawk's-beard (seedling to <20 cm)	Stinkweed
cow cockle	pigweed, redroot	stork's-bill
dandelions (seedlings and over-wintered rosettes < 15 cm)	shepherd's purse	thistle, Canada
flixweed (spring rosettes only)		

♦ Including herbicide-tolerant canola varieties.

♦♦ Control not observed until a minimum of 40 days after treatment.

Weeds Suppressed:

Dandelion (overwintered rosettes >15 cm, mature plants), Plantain (top growth)

Mixing Instructions

1. Fill sprayer tank 1/2 full of water.
2. Start sprayer tank agitation.
3. Add the required amount of **VIKING Florasulam Herbicide**
4. Add the correct amount of Curtail M Herbicide and continue to agitate.
5. Fill the sprayer tank with sufficient water to spray 100 L of spray mixture per hectare.
6. Follow sprayer directions and precautions as outlined above, especially when applying next to sensitive crops (e.g. canola and legumes).
7. Follow sprayer clean-up directions.

Note: Do not add a surfactant to this tank mixture.

Pre-Harvest/Grazing Intervals (VIKING Florasulam Herbicide + Curtail M Herbicide)

1. Do not cut the treated crop for hay or graze treated crop within 7 days after application.
2. Do not harvest the treated crop within 60 days after application.

TANK-MIX COMBINATIONS - VIKING FLORASULAM HERBICIDE + CURTAIL M HERBICIDE + OTHER HERBICIDES

Crops Registered: Spring wheat (including durum) and spring barley.

Do not apply these tank mixes to oats.

Application Directions

Tank mixtures of **VIKING Florasulam Herbicide** + MCPA Ester Herbicide or Curtail M Herbicide with other herbicides will provide control of broadleaf weeds and specified annual grasses. Apply to actively growing wheat and barley from the 2 to 6 leaf stage. Apply when weeds are actively growing. Only weeds emerged at the time of treatment will be controlled. Best results are obtained from applications made to seedling weeds. Follow all precautions, minimum interval to harvest and directions for use on the **VIKING Florasulam Herbicide** and tank mix partner labels.

Tank-Mix Combinations with VIKING Florasulam Herbicide, Curtail M Herbicide + Other Herbicides

Herbicide Tank-Mix Partner	Crops Registered	Rate (Product/ha)	Adjuvant and Rate	Additional Weeds Controlled
Assert 300 SC Herbicide	wheat (spring & durum), spring barley	1.6 L	Refer to Assert 300 SC label	wild oat
Everest 2.0 Herbicide †	Wheat (spring & durum)	36-72 mL/ha	Non-ionic surfactant (see label) 0.25% v/v	wild oat and green foxtail
Simplicity	wheat (spring & durum)	500 mL	Not required	Wild oat, barnyard grass, Japanese brome, yellow foxtail
Axial 100EC Herbicide	spring wheat, spring barley	600 mL	Adigor 700 mL/ha	Wild oats, green foxtail♦♦, yellow foxtail, barnyard grass♦♦, volunteer oats, volunteer canary seed, proso millet

† For conditions for when to use the higher rates, refer to the Everest 2.0 Herbicide label.

♦ Wheat (including durum) exposed to water-logged or saturated soils, or temperature extremes such as heat or freezing weather, or drought, low fertility or plant disease at application time could show unacceptable injury symptoms. Weed control may also be reduced by these same conditions.

♦♦ Suppression only of green foxtail and reduction in barnyard grass control may be observed.

Mixing Instructions

1. Fill sprayer tank 1/2 full of water.
2. Start sprayer tank agitation.
3. Add tank mix partners in the proper order (see Notes 2 and 3 below) and continue to agitate.
4. Fill the sprayer tank with sufficient water to spray 100 L of spray mixture per hectare.
5. Follow sprayer directions and precautions as outlined above, especially when applying next to sensitive crops (e.g. canola and legumes).
6. Follow sprayer clean-up directions.

Note 1: Add only the adjuvant recommended. Follow tank-mix partner label for order of mixing and for any specific mixing instructions.

Note 2: When using Assert 300 SC Herbicide, add tank mix partners in the following order: VIKING Florasulam Herbicide, Spray Water pH Adjuster, Assert 300 SC Herbicide, Curtail M Herbicide.

Note 3: When using Everest 2.0 Herbicide add tank mix partners in the following order: Everest 2.0 Herbicide, tank mix partner, adjuvant. Vigorous agitation is required to dissolve Everest 2.0 Herbicide before adding other tank mix partners.

TANK-MIX COMBINATION - VIKING FLORASULAM HERBICIDE + 2,4-D ESTER HERBICIDE

Crops Registered

Spring wheat (including durum) and winter wheat

Application Directions

For control of a wide spectrum of broadleaf weeds apply **VIKING Florasulam Herbicide** at 100 mL/ha tank-mixed with 2,4-D Ester Herbicide at 560 g a.e./ha (eg. 2,4-D LV600 at 1.0 L/ha).. Apply when wheat is in the 3 leaf expanded stage to the 6 leaf stage. Apply when weeds are actively growing. Only weeds emerged at the time of treatment will be affected. Best results are obtained from application made to seedling weeds.

Weeds Controlled or Suppressed by the Tank Mixture of VIKING Florasulam Herbicide + 2,4-D Ester Herbicide

Weeds Controlled:

bluebur	flixweed	prickly lettuce
burdock	kochia◆◆	ragweed, common
buckwheat, tartary	lady's-thumb	shepherd's purse
buckwheat, wild	lamb's quarters	smartweed
canola, volunteer◆	mustard, ball	sowthistle, annual
chickweed, common	mustard, wild	stinkweed
cleavers	narrow-leaved hawk's beard◆◆◆	sunflower, annual
cocklebur	pigweed, redroot	thistle, Russian
cow cockle	plantain	vetch
dandelion (seedlings and overwintered rosettes)		wild radish

◆ Including all herbicide-tolerant canola varieties

◆◆ Up to 5 cm in height

◆◆◆ 1-2 leaf stage

Weeds Suppressed:

hemp-nettle

sowthistle, perennial (top growth control)

thistle, Canada (top growth control)

Mixing Instructions

1. Fill sprayer tank 1/2 full of water.
2. Start sprayer tank agitation.
3. Add **VIKING Florasulam Herbicide**
4. Add 2,4-D Ester Herbicide and continue to agitate.
5. Fill the sprayer tank with sufficient water to spray 100 L of spray mixture per hectare.
6. Follow sprayer directions and precautions as outlined above, especially when applying next to sensitive crops (e.g. canola and legumes).
7. Follow sprayer clean-up directions.

Pre-Harvest/Grazing Intervals (VIKING Florasulam Herbicide + 2,4-D Ester Herbicide)

1. Do not permit lactating dairy animals to graze fields within 7 days after application.
2. Do not harvest forage or cut hay within 30 days after application.
3. Withdraw meat animals from treated fields at least 3 days before slaughter.
4. Do not harvest the treated mature crop within 60 days after application

TANK-MIX COMBINATIONS WITH VIKING FLORASULAM HERBICIDE + 2,4- D ESTER HERBICIDE + OTHER HERBICIDES

Crops Registered: Spring wheat (including durum)

Tank mixtures of **VIKING Florasulam Herbicide** + 2,4-D Ester Herbicide with other herbicides will provide control of broadleaf weeds and specified annual grasses. Apply when crops and weeds are actively growing. Only weeds emerged at the time of treatment will be controlled. Best results are obtained from applications made to seedling weeds.

Tank-Mix Combinations with VIKING Florasulam Herbicide + 2,4-D Ester Herbicide + Other Herbicides

Herbicide Tank-Mix Partner	Rate (Product/ha)	Adjuvant and Rate	Additional Weeds Controlled
Assert 300 SC Herbicide	1.6 L	Refer to the Assert 300 SC Herbicide label	wild oat
Everest 2.0 Herbicide[†]◆	36-72 mL/ha	Non-ionic surfactant (see label) 0.25% v/v	wild oat and green foxtail

† For conditions for when to use the higher rates, refer to the Everest 2.0 Herbicide label.

◆ Wheat (including durum) exposed to water-logged or saturated soils, or temperature extremes such as heat or freezing weather, or drought, low fertility or plant disease at application time could show unacceptable injury symptoms. Weed control may also be reduced by these same conditions.

Mixing Instructions

1. Fill sprayer tank 1/2 full of water.
2. Start sprayer tank agitation.
3. Add **VIKING Florasulam Herbicide** (see Notes 2 and 3 below).
4. Add 2,4-D Ester Herbicide and continue to agitate.
5. Add tank mix partner and continue to agitate.
6. Fill the sprayer tank with sufficient water to spray 100 L of spray mixture per hectare.
7. Follow sprayer directions and precautions as outlined above, especially when applying next to sensitive crops (e.g. canola and legumes).
8. Follow sprayer clean-up directions.

Note 1: Add only the adjuvant recommended below. Follow tank-mix partner label for order of mixing and any specific instructions for mixing.

Note 2: When using Assert 300 SC herbicide, add tank mix partners in the following order: VIKING Florasulam Herbicide, Spray Water pH Adjuster, Assert 300 SC Herbicide, 2,4-D Ester Herbicide.

Note 3: When using Everest 2.0 Herbicide add tank mix partners in the following order: Everest 2.0 Herbicide, tank mix partner, adjuvant. Vigorous agitation is required to dissolve Everest 2.0 Herbicide before adding other tank mix partners.

TANK-MIX COMBINATION - VIKING FLORASULAM HERBICIDE + GLYPHOSATE PRESENT AS ISOPROPYLAMINE SALT OR DIMETHYLAMINE SALT

Application Directions

VIKING Florasulam Herbicide may be tank mixed with glyphosate present as isopropylamine salt or dimethylamine salt to control volunteer glyphosate tolerant canola, wild buckwheat (up to 5 leaf) and top growth control of dandelion (up to 6 leaf stage) in addition to the labelled weeds controlled by **VIKING Florasulam Herbicide** or glyphosate.

Apply **VIKING Florasulam Herbicide** at 100 mL/ha and glyphosate (present as isopropylamine salt or dimethylamine salt) at 450 g a.e./ha in 100 L water per hectare.

Application Timing and Cropping

Apply to actively growing weeds in the 2-4 leaf stage, except where noted above. Extreme growing conditions such as drought or near freezing temperature prior to, at or following time of application may reduce weed control. Only weeds which are emerged at the time of application will be affected. If foliage is wet at the time of application, control may be decreased. Under conditions of high weed density, control may be reduced.

Spring

VIKING Florasulam Herbicide + glyphosate may be applied in the spring prior to seeding and no longer than 48 hours after seeding prior to any crop emergence. Fields treated with **VIKING Florasulam Herbicide** in the spring may be planted to barley, oats, wheat, durum or summer fallowed.

Summer

Prior to August 1st: **VIKING Florasulam Herbicide** + glyphosate may be applied to summer fallow fields and seeded in the following spring to barley, canola, oats, peas or wheat (including durum) or summer fallowed.

After August 1st, **VIKING Florasulam Herbicide** + glyphosate may be applied to summer fallow fields and seeded in the following spring to barley, oats or wheat (including durum) or summer fallowed.

Fall

VIKING Florasulam Herbicide + glyphosate may be applied to stubble or summer fallow fields after August 1st and prior to freeze-up and may be seeded to barley, oats or wheat (including durum) or summer fallowed.

Do not use in successive years at the same site.

Apply only one of the following treatments to the same site in the same year: a tank-mix of **VIKING Florasulam Herbicide** and glyphosate (present as isopropylamine salt or dimethylamine salt, prior to planting or as the initial treatment in summerfallow) or any post emergent herbicide containing florasulam.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, **VIKING Florasulam Herbicide** is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to **VIKING Florasulam 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:

- Where possible, rotate the use of **VIKING Florasulam Herbicide** or other Group 2 herbicide 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 Viking Crop Production Partners Inc. representatives at 1-587-743-1029.

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 any way that is inconsistent with the directions on the label.

Viking (TM) is a trademark of Viking Crop Production Partners Inc.
All other products mentioned are trademarks of their respective holders.