

2023-03-28

2023-0479

Container Label



VIKING™ Clopyralid Herbicide

| | | |
|-------|---|-----------|
| GROUP | 4 | HERBICIDE |
|-------|---|-----------|

SOLUTION

COMMERCIAL (AGRICULTURAL)

For control of perennial and annual broadleaved weeds in field crops, Christmas tree plantations, pasture, rangeland, vegetable and fruit crops, and non-cropland.

REGISTRATION NO.: 34779 PEST CONTROL PRODUCTS ACT

ACTIVE INGREDIENT: clopyralid: 360 g/L (present as the monoethanolamine salt)

NET CONTENTS: 1 L – 1020 L

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN



POISON

DANGER – EYE IRRITANT

**HARMFUL IF ABSORBED THROUGH SKIN
MAY CAUSE SKIN 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

KEEP OUT OF REACH OF CHILDREN

DANGER - EYE IRRITANT

HARMFUL IF ABSORBED THROUGH SKIN

MAY CAUSE SKIN IRRITATION

Avoid contact with eyes, skin and clothing. Avoid breathing vapours or spray mist.

Workers must wear long pants, a long-sleeved shirt and chemical-resistant gloves. Goggles or a face shield are required during mixing and loading. Gloves are not required to be worn during groundboom applications but are required for mixing/loading, clean-up and repair.

Do not enter or allow workers entry into treated areas for 12 hours following application to all crops.

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.

Apply only to agricultural crops when the potential for drift to areas of human habitation and 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 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 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 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 inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

TOXICOLOGICAL INFORMATION

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

AGRICULTURAL CHEMICAL

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

ENVIRONMENTAL PRECAUTIONS

TOXIC to non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE. 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.

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 of this product 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. Store in heated storage; if product is frozen, bring to room temperature and agitate before use.

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.
2. Add the rinsings to the spray mixture in the tank.
3. 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 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™ Clopyralid Herbicide

| | | |
|-------|---|-----------|
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PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN

DANGER - EYE IRRITANT

HARMFUL IF ABSORBED THROUGH SKIN

MAY CAUSE SKIN IRRITATION

Avoid contact with eyes, skin and clothing. Avoid breathing vapours or spray mist.

Workers must wear long pants, a long-sleeved shirt and chemical-resistant gloves. Goggles or a face shield are required during mixing and loading. Gloves are not required to be worn during groundboom applications but are required for mixing/loading, clean-up and repair.

Do not enter or allow workers entry into treated areas for 12 hours following application to all crops.

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.

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

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TOXICOLOGICAL INFORMATION

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

AGRICULTURAL CHEMICAL

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

ENVIRONMENTAL PRECAUTIONS

TOXIC to non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

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.

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 of this product 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. Store in heated storage; if product is frozen, bring to room temperature and agitate before use.

DISPOSAL Recyclable Containers:

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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 Clopyralid Herbicide is a liquid concentrate intended for dilution with water and for use on canola, sugar beets, rutabagas, summerfallow, flax (including low linolenic acid varieties), wheat (spring), barley (spring), oats, strawberry, seedling and established grasses grown for forage and seed production, non- crop farmland, balsam fir Christmas trees and highbush blueberry. It is readily absorbed by both foliage and roots and translocates both upwards and downwards in plants. The product controls Canada thistle, wild buckwheat, scentless chamomile, common groundsel and volunteer alfalfa. It suppresses growth of perennial sow-thistle through control of top growth.

DIRECTIONS FOR USE VEGETATION AND CROP PRECAUTIONS

Do not use in greenhouses.

Sensitive Plants

Do not apply **VIKING Clopyralid Herbicide** directly to, or otherwise permit it to come into contact with sunflowers, legumes (such as peas, beans, lentils or alfalfa), fruit or vegetable crops, flowers or other desirable broadleaved plants. Take precautions to prevent spray mists containing it to drift onto them. Residues of **VIKING Clopyralid Herbicide** can remain in the soil following the year of use, thereby affecting growth of sensitive crops.

Special precautions should be taken during application to non cropland areas such as roadsides, pipelines and railways where sensitive desirable vegetation may be present. Do not apply to or allow drift to come into contact with sensitive desirable vegetation such as vetch or clover which may be found on embankments.

Non-Target Sites

Avoid contamination of non-target land, water or irrigation ditches. Do not use **VIKING Clopyralid Herbicide** in the following areas: standing or flowing water; the inner banks or bottoms of irrigation ditches; in areas where surface water can run off to adjacent croplands either planted or to be planted to sensitive crops.

Crop Rotation

Fields previously treated with **VIKING Clopyralid Herbicide** can be seeded the following year to wheat, oats, barley, rye (not underseeded with legumes, clover or alfalfa), forage grasses, flax, canola, mustard or it can be summerfallowed. Do not seed to crops other than those listed above in the calendar year following treatment.

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.

Grazing and Harvesting for Feed

There are no restrictions on the grazing of crops or forages treated with **VIKING Clopyralid Herbicide**. If necessary, treated areas may be grazed immediately following application.

Manure and Straw

Residues of the herbicide occurring in the straw may be harmful to susceptible plants; therefore, do not use straw or crop residue from treated crops for composting or mulching susceptible broadleaved crops. If the straw or crop residue is used for animal bedding or feed, return the manure to fields to be planted to clopyralid tolerant crops such as wheat, barley, oats, rye, forage grasses, canola or flax. Do not grow susceptible crops such as peas, beans, lentils, potatoes, sunflowers or other sensitive crops on land which has been mulched with straw containing **VIKING Clopyralid Herbicide** residues within the last 12 months.

SPRAY EQUIPMENT AND CONTAINER PRECAUTIONS

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.

DO NOT APPLY BY AIR.

To Reduce Spray Drift

1. Use nozzles that deliver higher volumes and coarser droplets.
2. Use low pressures (200 to 275 kPa).
3. Use 100 to 200 L/ha of spray solution.
4. Spray when the wind velocity is 15 km/hr or less.

Equipment Clean-Up

Equipment used to apply **VIKING Clopyralid Herbicide** should not be used to apply other pesticides to sensitive crops without thorough cleaning. Contact your **VIKING Clopyralid Herbicide** dealer for a detailed equipment cleaning procedure.

APPLICATION DIRECTIONS Spray Preparation

To prepare the spray solution add about half the desired amount of water to the spray tank, then with mechanical or bypass agitation, add the recommended amount of **VIKING Clopyralid Herbicide**. Mix thoroughly in the tank. Second, add the recommended tank-mix herbicide. Finally with continued agitation, add the rest of the water.

Spray Application Volume

Apply **VIKING Clopyralid Herbicide** at 0.28 to 0.83 L/ha plus any other herbicide approved as a tank-mix at the recommended rate in sufficient water to ensure thorough coverage (100 to 200 L/ha of spray solution) by ground equipment only at pressures of 200 to 275 kPa. Treat when weeds are young and actively growing, when the Canada thistle is in the rosette to pre-bud stage and before the purple bud stage and volunteer alfalfa is 5-50 cm in height.

For spot spraying of weed patches, mix the required volume of **VIKING Clopyralid Herbicide** in 200 L of water and apply to 1000 m² of weeds. Refer to the following table for the correct amount of **VIKING Clopyralid Herbicide** to use:

| Recommended Rate of VIKING Clopyralid Herbicide Required Per Hectare | Volume of VIKING Clopyralid Herbicide Required To Treat 1000 m ² |
|--|---|
| 0.28 L | 28 mL |
| 0.42 L | 42 mL |
| 0.56 L | 56 mL |
| 0.83 L | 83 mL |

Approximate Conversions:

200 to 275 kPa = 30 to 40 PSI

100 to 200 L/ha = 10 to 20 gallons/acre

1 sq. metre = 1.2 sq. yards

1 L/ha = 14 fl. oz./acre

DIRECTIONS FOR USE – VIKING Clopyralid Herbicide Applied Alone

CROPLAND AND NON-CROP FARMLAND AREAS

| Weeds Controlled | Rate* |
|---|-----------|
| Canada thistle (top growth) vetch (<i>Vicia</i> spp.) alsike clover | 0.42 L/ha |
| Canada thistle, scentless chamomile, wild buckwheat perennial sow-thistle (top growth) common groundsel, volunteer alfalfa common ragweed sheep sorrel (suppression), ox-eye daisy (suppression) | 0.56 L/ha |
| Canada thistle (season-long control of top growth with a reduction in population in the following year) | 0.83 L/ha |

*Refer to individual crop sections below for appropriate use rate.

Weed Stages at Application

Applications of **VIKING Clopyralid Herbicide** should be made when Canada thistle, perennial sow-thistle and scentless chamomile are in the rosette to pre-bud stage of growth. Best results are obtained when Canada thistle is actively growing and soil moisture is adequate for rapid growth. Under dry soil conditions and poor growing conditions, control of Canada thistle may be severely reduced. Applications of **VIKING Clopyralid Herbicide** made after the Canada thistle flower has reached the purple bud stage will not provide satisfactory control.

Control of Canada Thistle

For in crop control of top growth of Canada thistle apply **VIKING Clopyralid Herbicide** at the rate of 0.42 L/ha. This will suppress top growth of Canada thistle for 6 to 8 weeks. Some regrowth may occur by the end of the season but this will not interfere with the harvesting of the crop.

For season long control of top growth of Canada thistle apply **VIKING Clopyralid Herbicide** at the rate of 0.56 L/ha. This rate will generally provide season long control of Canada thistle. Not all rhizomes will be killed and some regrowth may occur by the end of the growing season.

For season long control of top growth, with a reduction of Canada thistle population in the following year, apply **VIKING Clopyralid Herbicide** at the rate of 0.83 L/ha. This rate will provide season long control of Canada thistle and suppression into the following season, resulting in a reduction of the total number of Canada thistle shoots in the treated area.

CANOLA (Western Canada Only)

For use on Polish and Argentine varieties, including canola. **VIKING Clopyralid Herbicide** should be diluted with water and applied at the 2 to 6 leaf stage of the crop to effectively control Canada thistle, scentless chamomile, common groundsel, wild buckwheat, the top growth of perennial sow-thistle and volunteer alfalfa. For specific directions for control of Canada thistle only refer to the section: Control of Canada thistle.

Tank-mix Combinations in Canola

REFER TO THE PRODUCT LABELS OF THESE HERBICIDES FOR A LIST OF OTHER WEEDS CONTROLLED, RATES (IF NOT LISTED IN THE TABLE BELOW) AND TIMINGS OF APPLICATION, WATER VOLUMES AND USE PRECAUTIONS.

| Herbicide Tank-Mix Partner | Rate VIKING Clopyralid Herbicide | Rate Tank-Mix Partner | Additional Weeds Controlled |
|----------------------------|----------------------------------|--|--|
| Poast® Ultra | 0.42 - 0.83 L/ha | 0.32 - 0.47 L/ha plus Merge® Adjuvant 0.75-1.0L/ha | annual grass weeds, Canada thistle |
| Venture® L Herbicide | 0.42 – 0.83 L/ha | 0.6 - 2.0 L/ha | annual grass weeds, Canada thistle |
| Select® | 0.42 - 0.83 L/ha | 0.19 L/ha plus Amigo® at 0.5% v/v | Canada thistle***, wild buckwheat****, wild oats, green foxtail, volunteer barley, volunteer wheat, and volunteer oats |
| Odyssey® WDG† | 0.42 - 0.56 L/ha | 29 - 43 g/ha | Canada thistle (VIKING Clopyralid Herbicide at 0.42 L/ha will provide top growth control of Canada thistle for 6-8 weeks, while the 0.56 L/ha rate will provide season long control of top growth) |

| | | | |
|--|-----------|-----------|---|
| Vantage® Plus Max ♦♦ | 0.28 L/ha | 0.94 L/ha | For rates and timing of application for annual grass and broadleaf weeds please see tank-mix partner label. Weeds controlled season long: Canada thistle (season-long top growth), dandelions <15 cm diameter (season long top growth), dandelions >15 cm diameter (suppression), perennial sowthistle (season-long top growth), perennial sowthistle (season-long top growth), wild buck wheat |
| Roundup® Transorb HC Liquid ♦♦ | | 0.83 L/ha | |
| Roundup WeatherMAX® With Transorb 2 Technology♦♦ | | 0.83 L/ha | |

♦Clearfield canola varieties only – apply to Clearfield canola when in the 2 to 6 leaf stage and Canada thistle is actively growing.

♦♦Glyphosate-tolerant canola varieties only – apply to canola when in the 2 to 6 leaf stage. Use 100 L/ha water.

♦♦♦Canada thistle – 0.42 L **VIKING Clopyralid Herbicide**/ha top growth control to 6-8 weeks, 0.56 L **VIKING Clopyralid Herbicide** /ha season-long control, 0.83 L **VIKING Clopyralid Herbicide**/ha control into following year

♦♦♦♦Wild buckwheat – 0.56 L **VIKING Clopyralid Herbicide**/ha for season-long control

Tank-Mix Instructions

Note 1: When tank mixing water soluble formulations such as **VIKING Clopyralid Herbicide** with emulsifiable concentrates such as Poast Ultra and Select herbicides, first add the **VIKING Clopyralid Herbicide** to the spray tank. Once it is half filled with water, add the emulsifiable concentrate as the remaining water is put into the spray tank.

Note 2: If the sprayer has been previously used to apply herbicides which contain 2,4-D or MCPA herbicides, it is imperative that the spray equipment be thoroughly cleaned before **VIKING Clopyralid Herbicide** is mixed in the spray tank. Trace contamination of the spray solution with these herbicides will result in damage to the canola.

Note 3: Use 100 L/Ha of water. Use a 50 mesh (or coarser) filter screen. Fill the spray tank three-quarters full with water. Add the required amount of Odyssey WDG herbicide soluble bag(s) directly into the sprayer through the tank opening. Agitate for at least ten minutes to dissolve the herbicide. After the herbicide is dissolved, use a separate calibrated measuring device to add the required amount of **VIKING Clopyralid Herbicide** while agitating the spray solution. After the **VIKING Clopyralid Herbicide** is dissolved, continue agitation and add the required amount of Merge adjuvant or non-ionic surfactant plus fertilizer. If excess foaming occurs, a silicone anti-foaming agent may be added (e.g. Halt®). Complete filling the tank to the desired level with water. If agitation is stopped for more than 5 minutes, re-suspend spray solution by full agitation prior to commencing spraying again. Between loads of Odyssey WDG herbicide, check in-line and nozzle screens and rinse and clean if necessary. Upon completion of spraying Odyssey WDG herbicide, thoroughly flush tank, boom, hoses and in-line and nozzle screens with clean water to avoid possible injury to other crops.

FLAX, Including Low Linolenic Acid Varieties (Western Canada Only)

For use in flax, **VIKING Clopyralid Herbicide** should be applied when the flax is 5 to 10 cm high and the weeds are actively growing. Use **VIKING Clopyralid Herbicide** at 0.56 to 0.83 L/ha to control Canada thistle, common groundsel, scentless chamomile, wild buckwheat, perennial sow-thistle (top growth) and volunteer alfalfa.

The 0.83 L/ha rate will extend control of Canada thistle into the following year.

Tank-Mix Combinations in Flax

REFER TO THE PRODUCT LABELS OF THESE HERBICIDES FOR A LIST OF OTHER WEEDS CONTROLLED, RATES (IF NOT LISTED IN THE TABLE BELOW) AND TIMINGS OF APPLICATION, WATER VOLUMES AND USE PRECAUTIONS.

| Herbicide Tank-Mix Partner | Rate VIKING Clopyralid Herbicide | Rate Tank-Mix Partner | Additional Weeds Controlled |
|--|----------------------------------|---|--|
| MCPA Ester or MCPA Amine | 0.42 L/ha | 420 - 560 g ae/ha | Canada thistle (top growth control) shepherd's-purse, common groundsel common ragweed, cocklebur, dandelion, stinkweed, lamb's-quarters tartary buckwheat, scentless chamomile, wild buckwheat, wild mustard, volunteer canola, redroot pigweed ^φ , perennial sow-thistle (top growth), volunteer alfalfa |
| MCPA Amine (500 g ae/L) or MCPA Ester (500 g ae/L) | | 0.84 - 1.12 L/ha | |
| MCPA Ester (600 g ae/L) | | 0.7 - 0.93 L/ha | |
| Poast Ultra | 0.42 - 0.83 L/ha | 0.32 - 0.47 L/ha plus Merge Adjuvant 0.75-1.0 L/ha | annual grass weeds, Canada thistle |
| Poast Ultra plus MCPA Ester | 0.42 - 0.83 L/ha | 0.32 - 0.47 L/ha plus Merge Adjuvant 0.75-1.0 L/ha plus 420 - 560 g ai/ha | broadleaved, annual grasses, and certain perennial broadleaved weeds |
| Select | 0.56 - 0.83 L/ha | 0.19 L/ha + Amigo Adjuvant at 0.5% v/v | Canada thistle ^{φφ} , wild oats, green foxtail, volunteer barley, volunteer wheat, volunteer oats, and wild buckwheat |
| Select plus MCPA Ester | 0.21 - 0.28 L/ha | 0.19 L/ha plus Amigo Adjuvant at 0.5 v/v plus 420 - 560 g ae/ha | Low rate: 0.21 L/ha VIKING Clopyralid Herbicide + 420 g ae/ha MCPA Ester – Canada thistle (low infestation), wild oats, green foxtail, volunteer cereals (wheat, barley, oats). High rate: 0.28 L/ha VIKING Clopyralid Herbicide + 560 g a.e./ha MCPA Ester – Canada thistle (medium to high infestation), wild oats, green foxtail, red root pigweed, smartweed, sow-thistle (annual and perennial) (top growth), volunteer cereals (wheat, barley, oats), volunteer canola, and wild buckwheat |

^φ Refer to MCPA herbicide label for rates and control rating.

^{φφ} Canada thistle – 0.56 L VIKING Clopyralid Herbicide/ha for season-long control, 0.83 L VIKING Clopyralid Herbicide/ha control extended into following year.

Tank-Mix Instructions

Note 1: Rates of MCPA ester herbicide of 420 g active ingredient/ha or higher, or MCPA amine herbicide of 490 g active ingredient/ha or higher may cause some delay in maturity with resulting yield reduction.

Note 2: Where contact herbicides such as bromoxynil herbicide are used (which damage the leaves of the Canada thistle) **VIKING Clopyralid Herbicide** should be applied 7 to 14 days prior or after an interval of 14 days. This allows the Canada thistle to recover and resume growth.

Note 3: Add the correct amount of **VIKING Clopyralid Herbicide** to spray tank half filled with water and agitate. Add the correct amount of Poast Ultra herbicide and continue to agitate. Add the correct amount of Merge adjuvant along with the remaining amount of water necessary to fill the spray tank. Continue agitation.

Note 4: Add the correct amount of **VIKING Clopyralid Herbicide**, then MCPA herbicide to half filled sprayer and agitate for 2 to 3 minutes. Next, add Poast Ultra herbicide, and follow with the addition of Merge adjuvant with the remaining water to the required spray volume. Continuously agitate at all times.

OATS (Western Canada Only), WHEAT (SPRING) AND BARLEY (SPRING)

VIKING Clopyralid Herbicide may be used on wheat (spring), barley (spring) and oats to control Canada thistle, common groundsel, perennial sow-thistle (top growth control), wild buckwheat, scentless chamomile and volunteer alfalfa. **VIKING Clopyralid Herbicide** should be applied when the wheat, barley or oats are between the 3 leaf to flag leaf emergence stages of growth and weeds are actively growing. Since **VIKING Clopyralid Herbicide** damages legumes such as clover and alfalfa, these should not be undersown into the cereals. See Grazing and Harvesting for Feed Section of label for grazing/harvesting intervals for immature crops.

Rates of Use

VIKING Clopyralid Herbicide may be used alone in cereals for Canada thistle control.

Use 0.42 L/ha of **VIKING Clopyralid Herbicide** for the control of top growth of Canada thistle. This rate will suppress top growth of Canada thistle for 6 to 8 weeks. Some regrowth may occur by the end of the season but will not interfere with the harvesting of the crop.

Use 0.56 L/ha of **VIKING Clopyralid Herbicide** for season long control of Canada thistle.

Tank-Mix Combinations Oats (Western Canada Only), Spring Wheat and Barley

REFER TO THE PRODUCT LABELS OF THESE HERBICIDES FOR A LIST OF OTHER WEEDS CONTROLLED, RATES (IF NOT LISTED IN THE TABLE BELOW) AND TIMINGS OF APPLICATION, WATER VOLUMES AND USE PRECAUTIONS.

The following tank mixtures will control both annual and perennial broadleaved weeds listed on the tank-mix partner labels and in addition the weeds named in the Comments column below

| Herbicide Tank-Mix Partner | Crops Registered | VIKING Clopyralid Herbicide | Tank-Mix Partner | Additional Weeds Controlled |
|---|--|-----------------------------|---------------------|--|
| 2,4-D Ester or 2,4-D Amine | spring wheat durum wheat spring barley | 0.28 - 0.42 L/ha | 420 - 560 g a.e./ha | Canada thistle (VIKING Clopyralid Herbicide at 0.28 L/ha will control Canada thistle for 6 to 8 weeks and at 0.42 L/ha rate will provide season long control) DO NOT USE ON OATS |
| 2,4-D Amine (470 g ae/L) | | | 0.9 - 1.2 L/ha | |
| 2,4-D Amine (564 g ae/L) or 2,4-D Ester (564 g ae/L) | | | 0.75 - 1.0 L/ha | |
| 2,4-D Ester (660 g ae/L) | | | 0.64 – 0.85 L/ha | |
| MCPA Ester or MCPA Amine | spring wheat durum wheat spring barley oats | 0.28 - 0.42 L/ha | 420 - 560 g ae/ha | Canada thistle (VIKING Clopyralid Herbicide at 0.28 L/ha will control Canada thistle for 6 to 8 weeks and at 0.42 L/ha rate |
| MCPA Amine (500 gae/L) or MCPA Ester (500 g ae/L) | | | 0.84 - 1.12 L/ha | |
| MCPA Ester (600 g ae/L) | | | 0.7 – 0.93 L/ha | |

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|---------------------------------------|--|------------------|--|--|
| | | | | will provide season long control) |
| MCPA Ester plus Achieve™ Liquid | spring wheat durum wheat spring barley | 0.21 - 0.28 L/ha | 420 - 560 g ae/ha plus 0.5 L/ha plus Turbocharge® 0.5% v/v | green foxtail, yellow foxtail, barnyard grass, Persian dandel, wild oats DO NOT USE ON OATS |
| MCPA Ester plus Assert 300 SC | spring wheat durum wheat spring barley | 0.21 - 0.28 L/ha | 420 - 560 g ae/ha plus 1.3 - 1.6 L/ha | wild oats: use 1.3 L/ha of Assert 300 SC on 1-3 leaf wild oats and 1.6 L/ha of Assert 300 SC on 4 leaf wild oats. DO NOT USE ON OATS |
| MCPA Ester plus Axial® 100 EC | spring wheat spring barley | 0.21 - 0.28 L/ha | 420 - 560 g ae/ha plus 600 mL/ha plus Adigor 700 mL/ha | wild oats, green foxtail, yellow foxtail, volunteer oats, volunteer canary seed, proso millet DO NOT USE ON OATS |
| MCPA Ester plus Everest® Solupak 70DF | spring barley | 0.21 - 0.28 L/ha | 420 - 560 g ae/ha plus 43 g/ha | green foxtail, wild oats DO NOT USE ON OATS |
| Florasulam SC or plus MCPA Ester | spring wheat durum wheat spring barley oats | 0.21 L/ha | 0.1 L/ha plus 420 g ae/ha | Canada thistle, volunteer canola ^φ , common chickweed, cleavers, dandelions (seedlings; over-wintered rosettes <15 cm), flixweed (spring rosettes only), hemp-nettle, lamb's-quarters, pigweed, redroot, shepherd's purse, smartweed, perennial sowthistle (top growth only) ^{φφ} , annual sowthistle, stinkweed, stork's-bill, wild buckwheat, and wild mustard, and suppression of dandelion (over-wintered rosettes >15 cm; mature plants) ^φ Including Roundup Ready®, Liberty-Link® and Smart® herbicide-tolerant canola varieties ^{φφ} Control not observed until a minimum of 40 days after treatment |

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|--|--|------------------------------|--|---|
| Florasulam SC or plus MCPA Ester plus Assert 300 SC | spring wheat durum wheat spring barley | 0.21 L/ha | 0.1 L/ha plus 420 g ae/ha plus 1.6 L/ha | wild oats Use 1.3 L/ha of Assert 300 SC on 1-3 leaf wild oats and 1.6 L/ha of Assert 300 SC on 4 leaf wild oats DO NOT USE ON OATS |
| Florasulam SC or plus MCPA Ester plus Everest Solupak 70DF | spring wheat durum wheat | 0.21 L/ha | 0.1 L/ha plus 420 g ae/ha plus 43 g/ha plus Agral® 90 or AgSurf® 0.25% v/v | green foxtail, wild oats DO NOT USE ON OATS |
| Florasulam SC plus MCPA Ester plus Axial 100 EC | spring wheat spring barley | 0.21 L/ha | 0.1 L/ha plus 420 g ae/ha plus 600 mL/ha plus Adigor 700 mL/ha | wild oats, green foxtail ^φ yellow foxtail, volunteer oats, volunteer canary seed, proso millet, and barnyard grass ^{φφ} ^φ Suppression only of green foxtail. ^{φφ} A reduction in barnyard grass control may be observed with this tank-mix combination. DO NOT USE ON OATS |
| Starane™ II plus MCPA Ester | spring wheat durum wheat spring barley | 0.21 L/ha or or 0.28 L/ha | 0.31 L/ha plus 420 g ae/ha or 0.41 L/ha plus 560 g ae/ha | Low rate: cleavers (1-4 whorls), Canada thistle (low infestations), volunteer flax (1-12 cm), flixweed (spring seedling 24 lf), kochia ^{φφφ} , lamb's-quarters, wild mustard, shepherd's purse, stinkweed, volunteer sunflower and suppression of stork's-bill (1-8 leaf) High rate: cleavers (1-4 whorls), flixweed ^{φφ} , kochia ^{φφφ} , lamb's-quarters, shepherd's-purse, stinkweed, stork's bill (1-8 leaf), sunflower (volunteer), volunteer flax (1-12 cm), wild mustard, tartary, buckwheat, wild buckwheat (1-4 leaf), Canada thistle ^φ (medium to high infestations), volunteer canola, dandelion ^{φφ} , common groundsel, round-leaved mallow (1-6 leaf), red-root pigweed, Russian |

| | | | | |
|--|--|--|--|--|
| | | | | <p>pigweed, scentless chamomile, smartweed, annual sowthistle, perennial sowthistle^φ, and suppression of common chickweed ^{φφ}, hemp-nettle (2-6 leaf stage) ^φSeason long control, with some regrowth in the fall (top growth control). ^{φφ} spring rosettes only. ^{φφφ} Including biotypes resistant to Group 2 herbicides that inhibit the ALS enzyme. DO NOT USE ON OATS</p> |
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|--|--|---------------------------|---|--|
| Starane II plus MCPA Ester plus Achieve Liquid | spring wheat durum wheat spring barley | 0.21 L/ha or 0.28 L/ha | 0.31 L/ha plus 420 g ae/ha plus 0.5 L/ha or 0.41 L/ha plus 560 g ae/ha plus 0.5 L/ha plus Turbocharge 0.5 % v/v | plus green foxtail, wild oats DO NOT USE ON OATS |
| Starane II plus MCPA Ester plus Assert 300 SC | spring wheat durum wheat spring barley | 0.21 L/ha or 0.28 L/ha | 0.31 L/ha plus 420 g ae/ha plus 1.3 - 1.6 L/ha or 0.41 L/ha plus 560 g a.e./ha plus 1.3 - 1.6 L/ha | wild oats Use 1.3 L/ha of Assert 300 SC on 3-4 leaf wild oats and 1.6 L/ha of Assert 300 SC on 4 leaf wild oats DO NOT USE ON OATS |
| Starane II plus MCPA Ester plus Everest Solupak 70DF | spring wheat durum wheat | 0.21 L/ha or 0.28 L/ha | 0.31 L/ha plus 420 g ae/ha plus 43 g/ha or 0.41 L/ha plus 560 g ae/ha plus 43 g/ha | green foxtail, wild oats DO NOT USE ON OATS |
| Refine Extra plus 2,4-D Ester or MCPA Ester | spring wheat spring barley (Western Canada only) | 0.21 L/ha | 20 g/ha + Agral 90 Adjuvant 0.2% v/v plus 420 g ae/ha | perennial sow thistle, wild buckwheat, volunteer canola, wild mustard, lady's thumb and stinkweed, while providing seasonal control of Canada thistle and suppression of cleavers DO NOT USE ON OATS |

Tank-Mix Instructions

Note 1: If a tank-mix partner requires the addition of an adjuvant add the recommended adjuvant and dilution rate to the tank-mix.

Note 2: When tank mixing with Refine Extra, mix Refine Extra herbicide first in fresh water, then add the required amount of **VIKING Clopyralid Herbicide** followed by MCPA or 2,4-D herbicides. Add the surfactant last.

SUMMERFALLOW AND NON-CROP FARMLAND

VIKING Clopyralid Herbicide may be used on summerfallow (one application per year) and non-crop farmland (around farm buildings, storage areas, fence rows, etc.) at 0.83 L/ha for the control of Canada thistle, scentless chamomile, common groundsel, wild buckwheat, the top growth of perennial sow-thistle and volunteer alfalfa. The Canada thistle plants should be between the rosette and the early bud stage and actively growing at the time of spraying.

SEEDLING AND ESTABLISHED GRASSES FOR SEED PRODUCTION AND FORAGE (WESTERN CANADA ONLY)

Including Kentucky bluegrass, smooth brome grass, reed canary grass, creeping red fescue, meadow fescue, tall fescue, meadow foxtail, orchard grass, alтай wild ryegrass, Russian wild ryegrass, timothy, crested wheatgrass, intermediate wheatgrass, slender wheatgrass and streambank wheatgrass for forage and seed production and tall wheatgrass for forage only: For control of the weeds listed on the label plus alsike clover, apply **VIKING Clopyralid Herbicide** at the rate of 0.42 to 0.83 L/ha in 110 to 220 L/ha of water. Make one application per season by ground sprayer. For seedling grasses, apply at the 2 to 4 leaf stage. For established grasses, apply at the shot-blade stage, or in the fall after harvest or in early spring. See Grazing and Harvesting for Feed Section.

Balsam Fir Christmas Tree Plantations

For the control of vetch (*Vicia* spp.) apply **VIKING Clopyralid Herbicide** at 0.42 L/ha in 150 to 200 L/ha of water as a directed foliar application using a hydraulic sprayer. Best control is obtained when vetch stems are 10 to 15 cm long and prior to the vetch climbing into a tree crown. Avoid contact with the upper two thirds of the tree crown. Do not use on seedbeds, transplants or any over-the-top applications.

SUGAR BEETS

For Canada thistle control apply **VIKING Clopyralid Herbicide** at 0.56 to 0.83 L/ha with ground equipment as a foliar spray either broadcast or in a band over the row. When applied in the band, the amount of **VIKING Clopyralid Herbicide** should be reduced proportional to the band width. **VIKING Clopyralid Herbicide** should be applied when sugarbeets are in the cotyledon to 8 leaf stage. For the most effective control of Canada thistle, apply **VIKING Clopyralid Herbicide** as a broadcast treatment to the entire infested area. Do not apply within 90 days of harvest.

Rutabaga

For control of common ragweed, apply **VIKING Clopyralid Herbicide** with a boom sprayer at the rate of 0.56 L/ha in approximately 200 to 300 L/ha of water. Apply as a postemergent spray when ragweed plants are 5 to 10 cm tall.

Application to larger ragweed plants will result in reduced weed control. Make only one application per season. Preharvest interval is 83 days.

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DIRECTIONS FOR USE

HIGHBUSH BLUEBERRY: Make one application per year, post emergent for the control of vetch and red and white clover. Apply as a broadcast treatment. Apply at a rate of 0.42 L/ha for vetch and 0.83 L/ha for red and white clover. The Pre-harvest interval is 45 days.

CANOLA - ONTARIO ONLY: To be used on Canola in Ontario on the following NATIONALLY REGISTERED in Canada spring canola cultivars: Cyclone, Ebony, Jewel, 46A65 and Hyola 401.

| Weeds Controlled | Rate | 4.45 L Bottle Will Treat | For Optimum Results |
|---|------------------------------|--------------------------|---|
| Canada thistle, scentless chamomile, wild buckwheat, perennial sow-thistle (top growth), common groundsel | 0.42 L/ha to 0.56 L/ha | 10.6 ha to 7.9 ha | 1. Treat when weeds are actively growing. 2. Use 100 to 200 L/ha spray solution for uniform coverage |

Make one application per season; post emergent. Apply at the 2-6 leaf stage of canola, when weeds are actively growing. Apply to Canada thistle at the rosette to pre-bud stage.

BEARING AND NON-BEARING APPLES: To be used on bearing and non-bearing apples for control of perennial vetch species. Apply at a rate of 0.56 L/ha on vetch at the early flowering stage as a spot treatment. Apply as a ground application only. Avoid contact of the spray with the tree limbs. For best results apply in early spring. Allow at least 30 days between weed treatment application and harvest.

CABBAGE, CAULIFLOWER, BROCCOLI AND KOHLRABI (ALL TRANSPLANTED), NAPPA CABBAGE (TRANSPLANTED AND SEEDED), CHINESE RADISH, MUSTARD CABBAGE AND CHINESE BROCCOLI (ALL

SEEDDED). Make one application per year to control ragweed, vetch, common groundsel, Canada thistle and for suppression of sheep sorrel. Apply post planting as a ground application only.

Application rate: Apply at a rate of 0.56 L/ha in 300 L water/ha. The pre-harvest interval (PHI) is 30 days.

CRANBERRY: Make one-two applications per year, for the control of vetch. Apply with wiper-type application equipment.

Wipe treatments may be applied as a spot application. The treatment may be applied using equipment such as a hockey stick applicator. **The treatment solution should be wiped onto weed foliage which extends above the cranberry canopy.** Wiper applications may be made in the fall at least 2 weeks after harvest and after the vines have attained their winter dormancy colour, and in the spring prior to bud-break. Wiper application treatments may also be applied following cranberry bud-break (first emergence (1 to 2 mm) of terminal meristem) to control late emerging weeds or weeds which escaped earlier control measures.

Contact of the treatment solution with cranberry foliage after budbreak should be avoided since it will result in plant injury.

Application rate: Apply a 2% solution of **VIKING Clopyralid Herbicide** in water (20 mL product/L water). The preharvest interval is 60 days.

WEED CONTROL IN SHELTERBELTS: For control of Canada thistle in shelterbelts of villosa lilac, acute willow, Colorado spruce, white spruce, buffaloberry and chokecherry. Make one application per year. Apply to Canada thistle at the rosette to pre-bud stage, post emergent, ground application only.

Application rate: Apply at a rate of 0.83 L/ha.

STRAWBERRY (Renovation)

For control of tufted vetch and Canada thistle and suppression of sheep sorrel and ox-eye daisy, apply **VIKING Clopyralid Herbicide** at the rate of 0.56 to 0.83 L/ha. Apply as a broadcast application with a boom sprayer calibrated to deliver a total volume of 150 to 200 L/ha. For Canada thistle control, refer to the Control of Canada Thistle section for rate selection. For control of tufted vetch apply at the 0.56 L/ha rate. For sheep sorrel and ox-eye daisy, apply at the 0.83 L/ha rate. Apply as the single treatment immediately after harvest but before mowing. Wait at least 7 to 10 days after **VIKING Clopyralid Herbicide** application before mowing. Do not apply **VIKING Clopyralid Herbicide** after mid-August because of its possible effects on runner development and flower bud formation. Later applications of **VIKING Clopyralid Herbicide** may cause crop damage resulting in reduced yields in the season following treatment.

Apply **VIKING Clopyralid Herbicide** only as a summer renovation treatment.

Do not apply **VIKING Clopyralid Herbicide** more than once per year.

Early strawberry varieties such as Annapolis or Veestar may be more susceptible to injury. Certain environmental stresses such as drought, flooding or severe overwintering conditions may increase the risk of injury from **VIKING Clopyralid Herbicide**.

CONTROL OF TUFTED VETCH IN LOWBUSH BLUEBERRY IN EASTERN CANADA ONLY Apply **VIKING Clopyralid Herbicide** to control tufted vetch in lowbush blueberry. **FOR SPOT APPLICATION ONLY.** When using a hand gun or backpack sprayer to treat small infestations, apply **VIKING Clopyralid Herbicide** at a rate of 42 ml per 1000 square metre area in 200 L of water. When applying with a boom sprayer to treat larger infestations, apply 420 ml of **VIKING Clopyralid Herbicide** per hectare in 150-200 L water. Make one application per year, in the non-bearing year (prune year). Apply in June OR when tufted vetch is in early bloom. Applications of **VIKING Clopyralid Herbicide** may cause crop damage resulting in reduced yields in the season following application. The Pre-harvest interval is 10 months.

CONTROL OF CANADA THISTLE AND OTHER LABELLED WEEDS IN POPLAR SPECIES AND THEIR HYBRIDS

Apply **VIKING Clopyralid Herbicide** at a rate of 0.83 L/ha to control Canada thistle and other labelled weeds in new and established short rotation intensive culture crops of poplar (*Populus*) species and their hybrids. Make one application per year. Apply to Canada thistle in the rosette to pre-bud stage. Apply by ground application only using an overall spray or as a directed spray to the base of the tree. Some leaf cupping and stem twisting may occur, but will not adversely affect growth.

WARNING: Poplar clones/hybrids vary in their tolerance to VIKING Clopyralid Herbicide. Injury observed includes leaf injury, leaf cupping, stem twisting, height reduction and diameter reduction. As not all clones/hybrids have been tested for tolerance to VIKING Clopyralid Herbicide, use of this product should be limited to a small area of each clone/hybrid to confirm tolerance prior to adoption as a general field practice.

POST EMERGENCE WEED CONTROL IN CONIFERS FOR FIELD PRODUCTION

For the control of labeled weeds in established conifer plantations including Balsam fir, Fraser fir, White spruce, and White pine, apply **VIKING Clopyralid Herbicide** at 0.42 to 0.56 litres of product in 150 to 300 litres of water per hectare as a directed spray. Apply as banded sprays on either side of the trees contacting the bottom foliage only. Avoid contact with the upper two thirds of the tree crown. Do not use on seedbeds, transplants, or any over the top applications. Make one application per season.

VIKING Clopyralid Herbicide has been tested on Balsam Fir, Fraser Fir, White pine and White spruce. **VIKING Clopyralid Herbicide** may be applied to other non-listed conifer species, however, non-listed conifer species may vary in tolerance to **VIKING Clopyralid Herbicide**. The first use of **VIKING Clopyralid Herbicide** applied to any non-listed conifer species should be limited to a small area to confirm tolerance of each species prior to adoption as a general field practice.

REFER TO THE MAIN **VIKING Clopyralid Herbicide** LABEL FOR ADDITIONAL DETAILS AND INSTRUCTIONS, INCLUDING ROTATIONAL CROPPING RESTRICTIONS, BEFORE USING THIS PRODUCT

TRANSLINE™ IVM SYSTEM (NON-CROP USES)

FOR USE IN BRITISH COLUMBIA INTERIOR (including the Peace River Region of B.C.), PRAIRIES, CENTRAL AND ATLANTIC REGIONS OF CANADA ONLY.

VIKING Clopyralid Herbicide may be used on the following non-crop areas: rights-of-way (hydro, railroad, communication lines, pipelines) and associated stations, industrial manufacturing sites, storage sites, vacant lots and roadsides, military bases and low maintenance rough turf areas (grass areas where the dominant species are those listed in the Rangeland and Grass Pasture Section of this label, and where little or no maintenance is applied). This product is not registered for use on fine turf lawns or turf grass receiving high maintenance. Apply between 0.42 to 0.83 L/ha depending on weeds present and level of Canada thistle control required. Refer to the Weeds Controlled table for appropriate application rate.

TANK-MIX COMBINATIONS

VIKING Clopyralid Herbicide may be tank mixed with 2,4-D Amine or Ester or MCPA Amine or Ester for control of additional broadleaf weeds on roadsides and vacant lots. **VIKING Clopyralid Herbicide** may also be tank mixed with 2,4-D Amine for additional broadleaf use control on rights-of-way (hydro, railroad, communication lines, pipelines) and associated stations, industrial manufacturing sites and storage sites.

VIKING Clopyralid Herbicide at 0.42 to 0.83 L/ha may be tank mixed with 2,4-D or MCPA Herbicides at the rate of 420 to 560 g active ingredient/ha. The tank-mix will control many weeds, including: Canada thistle, cocklebur, common ragweed, dandelion, lamb's-quarters, scentless chamomile, perennial sow-thistle, shepherd's-purse, stinkweed, tartary buckwheat, wild buckwheat and wild mustard. Apply up to the 15 cm height of annual broadleaf weeds.

RANGELAND AND GRASS PASTURE

Including Kentucky bluegrass, smooth brome grass, reed canary grass, creeping red fescue, meadow fescue, tall fescue, meadow foxtail, orchard grass, altai wild ryegrass, Russian wild ryegrass, timothy, crested wheatgrass, intermediate wheatgrass, slender wheatgrass, streambank wheatgrass and tall wheatgrass.

For control of the weeds on the label plus alsike clover, apply **VIKING Clopyralid Herbicide** at the rate of 0.42 to 0.83 L/ha in 110 to 120 L/ha of water. Make one application per season by ground sprayer. For seedling grasses, apply at the 2 to 4 leaf stage. For established grasses, apply at the shot-blade stage or in the fall after harvest or early spring. Do not apply tank mixtures containing 2,4-D or MCPA.

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS: The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Viking Crop Production Partners Inc. under the User Requested Minor Use Label Expansion program. For these uses, Viking Crop Production Partners Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

DIRECTIONS FOR USE

FOR USE IN BRITISH COLUMBIA INTERIOR (including the Peace River Region of B.C.), PRAIRIES, CENTRAL AND ATLANTIC REGIONS OF CANADA ONLY.

CONTROL OF SPOTTED AND DIFFUSE KNAPWEED IN NON-CROPS AREAS (rights-of-way [hydro, railroad, communication lines, pipelines] and associated stations, industrial manufacturing sites, storage sites, roadsides, airports, military bases and low maintenance rough turf areas) AND IN RANGELAND, PASTURE AND BALSAM FIR CHRISTMAS TREE STANDS OR PLANTATIONS.

Weeds Controlled

Spotted and Diffuse Knapweed

Application Rate

.70 L/ha

Make one application per year for the control of spotted and diffuse knapweed. Apply in the spring prior to the bud stage of the weeds. Apply in 100 - 200 L water/ha. Apply to both seedling or established plants.

REFER TO THE MAIN **VIKING Clopyralid Herbicide** LABEL FOR ADDITIONAL DETAILS AND INSTRUCTIONS, INCLUDING ROTATIONAL CROPPING RESTRICTIONS, BEFORE USING THIS PRODUCT

SPRAY BUFFER ZONES

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

For applications to rights-of-way, spray buffer zones for protection of sensitive terrestrial habitats are not required; however, the best available application strategies which minimize off-site drift, including meteorological conditions (for example, wind direction, low wind speed) and spray equipment (for example, coarse droplet sizes, minimizing height above canopy), should be used.

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, woodlots, hedgerows, riparian areas and shrublands).

| Method of Application | Crop | Spray Buffer Zones (metres) Required for the Protection of Terrestrial Habitat |
|-----------------------|--|--|
| field sprayer♦ | wheat, barley, oats, flax, canola, forage grasses, high-bush blueberry, low-bush blueberry, strawberry, sugar beet, rutabaga, cabbage, broccoli, cauliflower, balsam fir, Christmas tree plantations, shelterbelts, poplar and their hybrids, non-crop uses, rangeland and grass pasture | 2** |
| | apple | 3 |

♦For field sprayer application, spray buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled spray buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with

cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled spray buffer zone can be reduced by 30%.

♦♦ Spray buffer zones for the protection of terrestrial habitats are not required for use on rights-of-way, including railroad ballast, rail and hydro rights-of-way, utility easements, roads and training grounds and firing ranges on military bases.

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 indicate on the label for those tank-mix partners.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, **VIKING Clopyralid Herbicide** is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to **VIKING Clopyralid Herbicide** and other Group 4 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 Clopyralid Herbicide** or other Group 4 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 chemical control practices.
- Monitor treated weed populations for 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 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. 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.

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