



VIKING

2025 CROP
PRODUCTION GUIDE



Ferocious™ Protection
for Canada's Crops.



Ferocious™ Protection for Canada's Crops. 

Viking Crop Production Partners Inc.

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We are **inclusive** and **collaborative** in our approach to build profitable, long term business **partnerships** within the Canadian agriculture community.



We're new. We are Viking Crop Production Partners. And we want to be your preferred choice for crop protection products. At Viking Crop Production Partners our goal is simple – we exist to provide a competitive edge for Canadian agriculture. Like the Vikings of the past who were also farmers, fishermen, craftsmen and traders, Viking Crop Production Partners is serious and relentless about bringing a Ferocious, proven, high performance portfolio of no-nonsense crop protection products that provide end to end crop protection for Canadian crops. This 2025 Viking Crop Production Partners Product Guide is just the start. It contains our current portfolio of Ferocious, high performance crop inputs, with even more Ferocious products and innovations to come. Like the Vikings of the past, you can count on us to deliver.

Doug Weinbender
President
Viking Crop Production Partners

WHAT MAKES VIKING UNIQUE?

There is no shortage of options in the crop protection market.

So why should you consider Viking Crop Production Partners Inc. to be your choice supplier of Ag products?

It's quite simple. We are here to deliver a strong, competitive alternative for our customers in Canada.

At Viking, we have one important goal — to create one of the most comprehensive portfolio of quality performance products that provide affordable, no-nonsense, corner to corner crop protection for our customers.

WE ARE PROUDLY CANADIAN

Viking is a Canadian company, owned and headquartered in Canada.

With mass consolidation in the crop protection business over the past many years the result has been fewer options for retailers and farmers.

Viking is proudly Canadian. Our staff are experienced industry professionals who understand Canadian agriculture. We know our farmers are some of the most productive and efficient in the world and we want to help them stay that way.

Viking is here as the trusted alternate supplier to help maintain a vibrant, competitive, locally owned dealer network — one that provides rock solid support, advice and a competitive edge to Canadian farmers.

HOW DO WE MAKE THAT HAPPEN?

1. First, we are here to listen to, and work with you to find solutions to maximize your profitability.
2. Second, we have the supply chain and portfolio of affordable performance products that will ensure you have what you need.
3. Third, we take pride in finding ways to save money that we can pass on to our customers.
4. These three pillars allow us to create strong, sustainable value for Canadian retailers and farmers.

WHAT MAKES US DIFFERENT?

We are not a big company layered with bureaucracy and overhead expenses. Because we are small and nimble, we can adapt and pivot quickly to be responsive to the needs of our customers, but we will never compromise the Viking values of Ferocious innovation, competition, and quality. It is our mission to create lasting business relationships and ensure those relationships create success.

For Viking, long term success is what matters.

VIKING QUALITY CERTIFIED



VIKING QUALITY COMMITMENT

At VIKING, we take our commitment to product quality seriously and we stand behind the quality and effectiveness of our products.

All production facilities that manufacture VIKING products are inspected and audited prior to production to ensure that stringent quality standards are met. Each product formulation is rigorously tested to meet the highest industry standards.

The **Viking Quality Certified**  icon means that the product has passed our rigorous quality inspection process and meets all VIKING quality requirements before it is shipped.

If the product quality does not meet expectation, simply contact your VIKING representative as soon as possible.

VIKING AGRONOMIC SUPPORT

VIKING representatives have a wealth of experience in western Canadian agriculture and crop production.

If you have technical or agronomic questions about any of VIKING's ferocious, no-nonsense crop protection products, simply contact your local VIKING retailer or one of our knowledgeable and experienced VIKING representatives for support.





VIKING PRODUCTS

PRE-SEED HERBICIDES

Product	Page	Active ingredient	Replaces
VIKING 540 Glyphosate Herbicide	11	540 Glyphosate	Glyphosate 540
VIKING Carfentrazone Herbicide	13	Carfentrazone	Aim®
VIKING Dicamba Herbicide	15	Dicamba	Banvel®
VIKING Eslov Herbicide	17	Dicamba (> 2X higher rate) + Tribenuron	Unique to VIKING
VIKING Florasulam Herbicide	19	Florasulam	PrePass™ Flex
VIKING Kiruna Herbicide	21	Dicamba + Florasulam	Korrex™
VIKING Solna Herbicide	23	Carfentrazone + 2,4-D Ester	Unique to VIKING
NEW VIKING Sorø Herbicide	25	Carfentrazone + Sulfentrazone	Authority® Strike™
NEW VIKING Sulfentrazone Herbicide	27	Sulfentrazone	Authority®
VIKING Tribenuron Herbicide	29	Tribenuron	Express®
VIKING Vardo Herbicide	31	Bromoxynil + high rate Carfentrazone	Unique to VIKING
VIKING Visby Herbicide	33	Tribenuron + Flucarbazone	Inferno® Duo
VIKING Ystad Herbicide	35	High rate Carfentrazone + higher rate Dicamba	Unique to VIKING

IN-CROP HERBICIDES

VIKING Clethodim Herbicide	37	Clethodim	Centurion®
VIKING Clodinafop Herbicide	39	Clodinafop	Horizon®
VIKING Fenoxaprop Herbicide	41	Fenoxaprop	Puma®
VIKING Flucarbazone Herbicide	43	Flucarbazone	Everest®
VIKING Pinoxaden 50 Herbicide	45	Pinoxaden	Axial®
VIKING Quizalofop Herbicide	47	Quizalofop	Assure®
VIKING 2,4-D Ester 700 Herbicide	49	2,4-D Ester	2,4-D Ester 700
VIKING MCPA Ester 600 Herbicide	51	MCPA Ester	MCPA Ester 600
NEW VIKING Askim Herbicide	53	Florasulam + Fluroxypyr (highest registered rates)	Unique to VIKING
VIKING Avesta Herbicide	55	Fluroxypyr + 2,4-D Ester + Thifensulfuron methyl 50%/Tribenuron methyl 25%	Retain®
VIKING Bentazon Herbicide	57	Bentazon	Basagran®
VIKING Bodo Herbicide	59	Florasulam + Fluroxypyr	Steel®
VIKING Brevik Herbicide	61	Fluroxypyr + Thifensulfuron methyl 50%/tribenuron methyl 25%	Unique to VIKING
VIKING Clopyralid Herbicide	63	Clopyralid	Lontrel™ 360
VIKING Drammen Herbicide	65	Clopyralid + MCPA Ester	Curtail™ M
IMPROVED VIKING Falun Herbicide	67	Imazamox + Clethodim	Unique to VIKING

IN-CROP HERBICIDES

Product	Page	Active ingredient	Replaces
IMPROVED VIKING Floro Herbicide	69	Imazamox 35% + Imazethapyr 35% + Clethodim	Unique to VIKING
VIKING Glufosinate 150 Herbicide	71	Glufosinate 150	Liberty®
VIKING 540 Glyphosate Herbicide	73	540 Glyphosate	Glyphosate 540
VIKING Hamar Herbicide	75	Bromoxynil + MCPA Ester	Buctril® M
NEW VIKING Harstad Herbicide	77	Bromoxynil + 2,4-D Ester	Thumper®
VIKING Imazamox Herbicide	79	Imazamox	Solo®
VIKING Imazethapyr Herbicide	81	Imazethapyr	Pursuit®
VIKING Kalmar F2 Herbicide	83	Fluroxypyr + 2,4-D Ester	OcTTain™
VIKING Larvik Herbicide	85	Fluroxypyr + Clopyralid + Thifensulfuron methyl 50%/Tribenuron methyl 25%	Unique to VIKING
VIKING Lidingo Herbicide	87	Fluroxypyr + MCPA Ester	Trophy®
NEW VIKING Maloy Herbicide	89	Metsulfuron-methyl 60%	Ally®
VIKING Metribuzin Herbicide	91	Metribuzin	Sencor®
VIKING Navik Herbicide	93	Thifensulfuron methyl 50%/tribenuron methyl 25%	Refine®
VIKING Skien Herbicide	95	Imazamox 35%/Imazethapyr 35%	Odyssey®
VIKING Stavanger Herbicide	97	Fluroxypyr + Clopyralid + MCPA Ester	Prestige™
IMPROVED VIKING Trycka Herbicide	99	Fluroxypyr (highest registered rate) + Bromoxynil + MCPA Ester	Unique to VIKING

FUNGICIDES

VIKING Azoxystrobin Fungicide	103	Azoxystrobin	Quadris®
VIKING Drobak Fungicide	105	Pyraclostrobin + Tebuconazole	Unique to VIKING
NEW VIKING Kannus Fungicide	107	Azoxystrobin + Prothioconazole	Unique to VIKING
VIKING Propiconazole Fungicide	109	Propiconazole	Tilt®
NEW VIKING Prothioconazole Fungicide	111	Prothioconazole	Proline®
VIKING Pyraclostrobin Fungicide	113	Pyraclostrobin	Headline®
VIKING Tebuconazole Fungicide	115	Tebuconazole	Folicur®
VIKING Tromso Fungicide	117	Prothioconazole + Tebuconazole	Prosaro®
NEW VIKING Vaasa Fungicide	119	Prothioconazole + Pyraclostrobin	Unique to VIKING



DESICCANTS

VIKING Diquat Desiccant	123	Diquat	Reglone®
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PRE-HARVEST HERBICIDES

VIKING 540 Glyphosate Herbicide	125	540 glyphosate	Glyphosate 540
VIKING Carfentrazone Herbicide	127	Carfentrazone	Aim®

ADJUVANTS

VIKING PHC Adjuvant	130	50% surfactant blend + 50% solvent	Merge®
VIKING Phosphate Ester Adjuvant	130	Polyoxyalkylated alkyl phosphate ester	Amigo®
VIKING Crop Oil Concentrate	130		Score®

INSECTICIDES

NEW VIKING Rauma Insecticide	133	Deltamethrin	Decis®
NEW VIKING Rorvik Insecticide	135	Chlorantraniliprole	Coragen®

SEED TREATMENT

NEW VIKING Grimstad Seed Treatment	139	Trifloxystrobin	
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RESOURCES

Best practices for effective sprayer clean-out		141
Managing herbicide resistance		142
Conversion chart for 2,4-D AND MCPA		143
Metric Conversion		144



VIKINGTM

HERBICIDES

HERBICIDE CONTROL BY CROP

PRE-SEED HERBICIDES

	Page	Durum Wheat	Winter Wheat	Spring Wheat	Oats	Barley	Rye	Alfalfa	Canola	Flax	Dry Beans	Field Peas	Lentils	Chickpeas	Corn	Soybean	Potatoes	* See label for complete list
VIKING 540 Glyphosate Herbicide	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIKING Carfentrazone Herbicide	13	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
VIKING Dicamba Herbicide	15	X	X	X	X	X									X ¹			X
VIKING Eslov Herbicide	17	X		X		X												X
VIKING Florasulam Herbicide	19	X	X	X	X	X												X
VIKING Kiruna	21		X	X	X	X												X
VIKING Solna	23		X	X														X
NEW VIKING Sorø Herbicide	25									X		X		X		X		X
NEW VIKING Sulfentrazone Herbicide	27									X		X		X		X		X
VIKING Tribenuron Herbicide	29	X		X		X												X
VIKING Vardo Herbicide	31								X									X
VIKING Visby Herbicide	33			X														X
VIKING Ystad Herbicide	35	X	X	X	X	X												X

IN-CROP HERBICIDES

VIKING Clethodim Herbicide	37								X	X	X	X	X	X		X	X	X
VIKING Clodinafop Herbicide	39	X		X														X
VIKING Fenoxaprop Herbicide	41	X		X		X												X
VIKING Flucarbazone Herbicide	43	X		X														X
VIKING Pinoxaden 50	45			X		X												X
VIKING Quizalofop Herbicide	47								X	X	X	X	X	X		X		X
VIKING 2,4-D Ester 700 Herbicide	49		X	X														X
VIKING MCPA Ester 600 Herbicide	51	X	X	X	X	X		X										X
NEW VIKING Askim Herbicide	53	X		X		X												X
VIKING Avesta Herbicide	55	X		X														X
VIKING Bentazon Herbicide	57										X	X				X		X
VIKING Bodo Herbicide	59	X		X	X	X												X
VIKING Brevik Herbicide	61			X	X													X
VIKING Clopyralid Herbicide	63			X	X	X			X	X								X
VIKING Drammen Herbicide	65	X		X	X	X				X								X
VIKING Falun Herbicide	67											X	X ²					X
VIKING Floro Herbicide	69											X						X
VIKING Glufosinate 150 Herbicide	71				X ³													X
VIKING 540 Glyphosate Herbicide	73														X ⁴	X ⁴		X
VIKING Hamar Herbicide	75	X		X		X												X

HERBICIDE CONTROL BY CROP

	Page	Durum Wheat	Winter Wheat	Spring Wheat	Oats	Barley	Rye	Alfalfa	Canola	Flax	Dry Beans	Field Peas	Lentils	Chickpeas	Corn	Soybean	Potatoes	*See label for complete list
NEW VIKING Harstad Herbicide	77		X	X														X
VIKING Imazamox Herbicide	79											X	X ²					X
VIKING Imazethapyr Herbicide	81							X			X	X				X ⁵		X
VIKING Kalmar F2 Herbicide	83		X	X														X
VIKING Larvik Herbicide	85	X		X		X												X
VIKING Lidingo Herbicide	87	X		X		X												X
VIKING Maloy	89	X		X		X												X
VIKING Metribuzin Herbicide	91											X	X	X		X		X
VIKING Navik Herbicide	93	X	X	X	X	X												X
VIKING Skien Herbicide	95											X						X
VIKING Stavanger Herbicide	97	X		X		X												X
VIKING Trycka Herbicide	99	X		X		X												X

¹Field corn only.

²Clearfield® lentils only.

³Glufosinate tolerant varieties only.

⁴Glyphosate tolerant varieties only.

⁵Eastern Canada and Manitoba Only.

VIKING™

540 GLYPHOSATE

Herbicide

Ferocious™, affordable potassium salt 540-gram formulation glyphosate choice.

GROUP 9

REPLACES: Glyphosate 540

REGISTERED CROPS AND USES

- Pre-seed
- Summerfallow
- Pre-harvest and post-harvest applications
- Registered glyphosate tolerant crops
- Non-crop and industrial uses

WEEDS CONTROLLED

- Same weeds controlled as Roundup®
- See product label for a complete list of weeds controlled.

ACTIVE INGREDIENT

- Glyphosate 540 g/L soluble concentrate (SC) present as potassium salt

APPLICATION RATE AND ACRES TREATED

- See product label for application rates.

PACKAGE SIZE

- 500 L tote
- 1000 L tote

WATER VOLUME

Required water volume is crop and use specific. See product label for requirements

SURFACTANT

- Not required for most uses.
- Some uses required the addition of 350 mL/acre of a surfactant registered for use such as Agral® 90 or Ag-Surf®. See product label for details.

RAINFAST

- 1 hour

HOW VIKING 540 GLYPHOSATE WORKS:

A non-selective, systemic herbicide that moves from the foliage into the roots and kills the entire plant.

CROP STAGING

Crop	Stage
Glyphosate tolerant canola	Cotyledon to 6 leaf
Glyphosate tolerant soybeans	First trifoliolate to flowering
Glyphosate tolerant corn	Up to 8 leaves
Pre-seed, summerfallow, pre-harvest post-harvest	See label for use

CROP ROTATIONS

- Grow all major crops the year after application

REGISTERED AND SUPPORTED TANK MIXES*

- Tank mixes are crop-and-use-specific. See product label for tank mix recommendations.

GRAZING RESTRICTIONS

- All portions of treated crops may be fed to livestock.

PREHARVEST AND GRAZING INTERVAL IN DAYS

- No preharvest interval is indicated.

STORAGE

- Store this product away from food or feed. Heated storage is not required. If product is frozen warm to room temperature and agitate before use. Avoid contamination of seed, feed, and foodstuffs.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of dry, soluble concentrate, or liquid tank mix partner products.
3. Add the required amount of **VIKING 540 Glyphosate Herbicide**.
4. Add the required amount of surfactant if needed and apply.
5. Always refer to tank mix partner labels for specific tank mix requirements.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

For best performance apply during warm moist growing conditions when temperatures are between 12°C and 24° C. Wilting and yellowing of annual weeds will occur within 2-4 days, perennials will require 7-10 days or longer, and full control may take 3-4 weeks depending on growing conditions. Control may be slowed or reduced under cool, wet cloudy conditions or if plants are stressed by drought, frost, or other stress conditions. Dirty water, hard water, water with suspended soil or organic matter or water containing calcium (Ca+), magnesium (Mg+), or iron (Fe+) ions will reduce control.

PULSE & SPECIAL CROP PRE-SEED
HERBICIDE

VIKING™ CARFENTRAZONE

Herbicide

Ferocious™, fast and effective pre-seed control of cleavers (including group 2 resistant biotypes), kochia (including group 2, 4 and 9 resistant biotypes), flixweed, redroot pigweed, and volunteer canola (including all HT varieties) when mixed with glyphosate plus tank mix flexibility, no re-cropping restrictions, and an alternative Group 14 mode of action for resistance management prior to seeding different crops.

GROUP 14

REPLACES: Aim®

REGISTERED CROPS AND USES

- Canola
- Chickpea
- Dry bean
- Lentils
- Field peas
- Soybeans
- Fababeans
- Barley
- Spring wheat
- Durum wheat
- Winter wheat
- Oats
- Potato
- Buckwheat
- Corn (including field, pop and sweet)
- Pearl millet
- Proso
- Millet
- Rye
- Triticale
- Mustard
- Flax
- Safflower
- Sunflower
- See product label for a complete list of additional registered crops.

WEEDS CONTROLLED

(At 29.2 ml/acre) See product label for the maximum size of each weed controlled:

- Carpetweed
- Cleavers^{1,4}
- Cocklebur
- Common purslane
- Eastern black nightshade
- Flixweed⁴
- Jimsonweed
- Kochia²
- Lamb's-quarters
- Morning glory
- Hairy nightshade
- Round-leaved mallow
- Pennsylvania smartweed (seedling)
- Pigweed (prostrate, redroot, smooth, tumble)
- Russian thistle⁴
- Shepherd's purse⁵
- Stinkweed
- Tansy mustard
- Tall waterhemp
- Velvetleaf
- Volunteer canola³ (up to 4 leaf stage)

¹Including Group 2 resistant biotypes

²Including Group 2, 4, and 9 resistant biotypes

³Including all HT varieties

⁴Controlled with the addition of glyphosate at 180-275 g ae per acre

⁵Controlled with the addition of glyphosate at 325 g ae per acre

ACTIVE INGREDIENT

- Carfentrazone-ethyl 240 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Recommended Rate:** 30 mL/acre
- **Acres Treated:** 320 acres/case
- See label for additional application rates.

PACKAGE SIZE

- **Case:** 2 X 4.8 L jugs

WATER VOLUME

- 10 US gallons/acre (40 L/acre)

SURFACTANT

- Not required when used with glyphosate.

RAINFAST

- Minimum 6 hours


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HOW VIKING CARFENTRAZONE WORKS:

Contact herbicide that is primarily absorbed by the leaves of plants. Typical symptoms are rapid browning and necrosis which occurs rapidly within hours after application with control taking several days to one week.

CROP STAGING

- **Crop stage:** prior to seeding
- **Weed stage:** up to 10 cm in height

CROP ROTATIONS

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING 540 Glyphosate Herbicide, Viking Dicamba Herbicide, VIKING Sulfentrazone Herbicide, VIKING Tribenuron Herbicide.**

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- No grazing restrictions.

PREHARVEST INTERVAL

- Mature crops can be harvested 3 days after application, except potatoes, which require 7 days after application

STORAGE

- Store in a cool dry place away from heat.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. If required add the correct amount of any dry or solution concentrate products.
3. Add the required amount of **VIKING Carfentrazone Herbicide.**
4. Add the required amount of **VIKING 540 Glyphosate Herbicide.**
5. Add any other liquid formulation tank mix products.
6. Add surfactant if required, then complete filling tank and apply.
7. If application is paused prior to completion, agitate to re-suspend spray solution prior to commencing spraying.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when applied between 12°C and 24°C in warm, moist, sunny conditions when weeds are small and actively growing. Good coverage of weeds is essential; due to rapid absorption by leaves, translocation is very limited. Weeds that are not emerged will not be controlled. Extreme weather conditions such as temperature, moisture, soil conditions and cultural practices may affect activity. Under drought conditions control may be reduced as weeds hardened off by drought are less susceptible. Do not apply **VIKING Carfentrazone Herbicide** more than once per growing season.

CEREAL PRE-SEED HERBICIDE

VIKING QUALITY
CERTIFIEDVIKING™
DICAMBA

Herbicide

Ferocious™, proven pre-seed control of cleavers, kochia (including group 2 resistant biotypes), cow cockle, smartweed and wild buckwheat plus many more tough broadleaf weeds when mixed with glyphosate prior to seeding spring wheat, durum wheat, barley, oats, and field corn, and in summerfallow.

GROUP 4

REPLACES: Banvel®

REGISTERED CROPS AND USES

- Pre-seed ahead of spring wheat, winter wheat, durum wheat, barley, oats, and field corn only.
- Chem-fallow, summerfallow, stubble.
- See label for additional product uses and application rates.

WEEDS CONTROLLED

WEEDS CONTROLLED IN PRE-SEED AT 127 mL/acre

When mixed with glyphosate acid equivalent at 0.375 L/acre (360 gm a.i./L formulation)

- | | |
|-------------------------------------|-----------------------------------|
| • Cleavers ¹ (1-4 whorl) | • Russian thistle |
| • Cow Cockle | • Smartweed |
| • Downy brome | • Stinkweed ² |
| • Flixweed ² | • Volunteer canola ³ |
| • Foxtail barley ⁴ | • Volunteer cereals |
| • Green foxtail | • Wild oats |
| • Kochia ⁵ | • Wild buckwheat (1-4 leaf stage) |
| • Lady's-thumb | • Wild mustard |
| • Lamb's-quarters | |
| • Persian dandelion | |
| • Redroot pigweed | |

¹ Suppression only

² For optimal control 2,4-D should be applied in the fall prior.

³ Requires addition of 2,4-D or MCPA Amine for RR volunteers.

⁴ Apply before initiation of seed head or browning of lower leaves.

⁵ Including group 2 resistant biotypes.

PERENNIAL WEEDS CONTROLLED

IN SUMMERFALLOW AT 0.5 L/ACRE

When mixed with glyphosate acid equivalent at 0.75 L/acre (360 gm a.i./L formulation):

- | | |
|----------------------------|---------------------------------------|
| • Canada thistle | • Perennial sow thistle |
| • Curled dock ¹ | • Tansy ragwort |
| • English daisy | • Plus weeds controlled by glyphosate |
| • Field bindweed | |
| • Goldenrod | |

¹ Top growth only

ACTIVE INGREDIENT

- Dicamba 480 g/L solution

APPLICATION RATE AND
ACRES TREATED

- **Low rate:** 127 mL/acre (pre-seed)
- **High rate:** 500 mL/acre (summerfallow)
- **Acres Treated:** 160 acres (pre-seed), 40 acres (summerfallow)
- See product label for additional information on application rates.

PACKAGE SIZE

- **Case:** 2 X 10.2 L jug

WATER VOLUME

- US gallons/acre (40 L/acre)

SURFACTANT

- Not required when used alone.
- Agral® 90 or another non-ionic surfactant at 5 L per 1,000 L water when mixed with glyphosate.

RAINFEST

- Minimum 1 hour



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HOW VIKING DICAMBA WORKS:

Absorbed through roots and leaves and translocated in the plant through phloem and xylem, mimicking naturally occurring plant growth hormones and disrupting the affected plants metabolism. Symptoms of effect include epinasty (twisting of the stems) and swollen nodes.

CROP STAGING

- **Crop stage:** immediately prior to seeding
- **Weed stage (Pre-seed):**
Grass weeds: emergence to heading
Broadleaf weeds: up to 15 cm in height
- **Weed stage (Summerfallow or stubble):** See label for weed specific application timing

CROP ROTATIONS

- **Pre-seed:** grow all major crops the year after application.
- **Summerfallow or stubble[†]:** canola, cereals, field corn, soybeans, white beans can be grown the year after application.
- **Re-cropping options are rate dependent** – see label for details.

[†]If application occurs after September 1, or if soil moisture conditions are low after application, crop injury may occur the following year.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING 540 Glyphosate Herbicide, Viking Carfentrazone Herbicide, VIKING Tribenuron Herbicide, 2,4-D Amine or MPCA Amine**

GRAZING RESTRICTIONS

- Lactating dairy animals may graze fields 7 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.

PREHARVEST INTERVAL

- Harvest forage or cut hay 30 days after application

STORAGE

- If frozen warm gently and shake thoroughly before use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required rate of **VIKING Dicamba Herbicide**.
3. If required, add the correct rate of 2,4-D Amine or MPCA Amine.
4. Add the required rate of **VIKING 540 Glyphosate Herbicide**.
5. Add any required surfactant, complete filling with water and apply.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when applied between 10°C and 25°C in warm moist growing conditions when weeds are small and actively growing. Typical symptoms (curled leaves, twisted stems, swollen nodes, cupped leaves) of dying weeds may not be noticeable for 10-14 days after application depending upon growing conditions. Control of weeds may take 3-4 weeks. For Canada thistle and perennial sow thistle rosette control in summerfallow and stubble, perform final tillage the last week in July or first weed in August, let thistles re-grow for a minimum of 4 weeks, and apply before thistles reach early bud stage (15-25 cm tall) and at least 2 weeks prior to a killing frost. Avoid application when crop is under stress from adverse environmental conditions. Do not spray if risk of frost or severe drop in nighttime temperatures is forecast. Under certain stress conditions, such as drought, cool temperatures or where extremely hard water (> 700 ppm Ca + Mg) will be used, use 5 US gallons/acre of water to help improve results. For field corn, do not use on sandy or sandy loam soil with less than 2.5% organic matter. Dicamba may drift into susceptible crops and result in injury - do not apply in conditions favoring thermal inversions, or when winds are blowing towards susceptible plants.

CEREAL PRE-SEED HERBICIDE

VIKING QUALITY
CERTIFIEDVIKINGTM
ESLOV

Herbicide

FerociousTM, systemic, multi-mode of action product with a higher rate of dicamba for effective pre-seed control of kochia (including group 2 resistant biotypes), enhanced control of dandelion and narrow-leaved hawk's-beard, plus control of flixweed, stinkweed, and 17 other tough-to-kill broadleaf weeds when mixed with glyphosate prior to seeding spring wheat, durum wheat and barley.

GROUP 2 & 4

REPLACES: Express® FX

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley

WEEDS CONTROLLED

When mixed with glyphosate acid equivalent at 0.5 L/acre (360 gm a.i.):

Weeds up to 8 cm

- Canada fleabane
- Common ragweed
- Narrow-leaved hawk's-beard

Weeds up to 15 cm

- Cleavers (1-4 whorls)¹ suppression only
- Cow cockle
- Dandelion
- Downy brome
- Flixweed
- Giant foxtail
- Green foxtail
- Hemp-nettle
- Kochia²
- Lady's thumb
- Lamb's-quarters
- Persian darnel
- Redroot pigweed
- Russian thistle
- Smartweed
- Stinkweed
- Volunteer barley
- Volunteer canola³
- Volunteer flax
- Volunteer wheat
- Wild buckwheat
- Wild mustard
- Wild oats

Rosette

- Canada thistle¹

¹ Suppression only

² Including group 2 resistant biotypes

³ Including all HT varieties

ACTIVE INGREDIENTS

- Dicamba 480 g/L solution (S)
- Tribenuron-methyl 75% dry flowable (DF)

APPLICATION RATE AND
ACRES TREATED

- 127 mL/acre **VIKING Dicamba Herbicide** + 4 grams/acre **VIKING Tribenuron Herbicide**
- **Acres Treated:** 160 acres/case.

PACKAGE SIZE

- **Case:** 2 X 10.2 litre jugs **VIKING Dicamba Herbicide** + 2 X 320 gram bottles **VIKING Tribenuron Herbicide**

WATER VOLUME

- Minimum 10 US gallons/acre (40 L/acre)

SURFACTANT

- None required when mixed with glyphosate.

RAINFAST

- Minimum 1 hour

**VIKING**

vikingcropproduction.com



HOW VIKING ESLOV WORKS:

Absorbed primarily through leaves and translocated in the plant, mimicking naturally occurring plant growth hormones and disrupting the affected plants metabolism, or through inhibition of the ALS enzyme depending on the weed species. Symptoms of effect will gradually spread through the plant and include reddening or purpling and/or epinasty (twisting of the stems) and swollen nodes.

CROP STAGING

- **Crop staging:** Apply up to 1 day prior to seeding.
- **Weed staging:** See “Weeds Controlled” section.

CROP ROTATIONS:

- All major crops may be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- **VIKING 540 Glyphosate Herbicide**

GRAZING RESTRICTIONS:

- Lactating dairy animals may graze fields 7 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

PREHARVEST INTERVAL:

- Harvest forage or cut hay 30 days after application.

STORAGE:

- Store product in original container in a secure, dry area, away from fertilizer, seed, food or feed. If liquid component is frozen, warm gently and shake before use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required amount of **VIKING Tribenuron Herbicide** and agitate until product is fully dissolved.
3. Add the required amount of **VIKING Dicamba Herbicide**.
4. Add the required amount of **VIKING 540 Glyphosate Herbicide**.
5. Add required amount of surfactant, then fill the tank with the balance of required water and apply.
6. Product must be applied within 24 hours in order to remain effective.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

This product must be mixed with glyphosate. Use 50 mesh or larger screens in spraying equipment. Best control will occur when applied between 10°C and 25°C in warm moist growing conditions when weeds are small and actively growing. Degree and duration of control will depend on weed sensitivity, weed size, spray coverage and growing conditions. Always ensure thorough spray coverage of target weeds. Typical symptoms (discoloration, curled leaves, twisted stems, swollen nodes, or cupped leaves) of dying weeds may not be noticeable for 10-14 days after application depending upon growing conditions. Control of weeds may take 3-4 weeks. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and regrowth may occur. Application to crops that are stressed by severe weather conditions, cold weather, frost, low fertility, drought, water-logged soil (soil at or near field capacity), disease or insect damage may result in crop injury. Do not use on highly variable soils that have large gravelly or sandy areas, eroded knolls, calcium deposits, or soils with less than 3% organic matter, as risk of crop damage will increase.

CEREAL PRE-SEED HERBICIDE

VIKING QUALITY
CERTIFIED

VIKINGTM FLORASULAM

Herbicide

FerociousTM, hard-hitting, pre-seed and post-harvest control of dandelion (top growth), narrow-leaved hawk's-beard, volunteer canola (all HT varieties), wild buckwheat and other hard-to kill weeds plus tank mix flexibility and no re-cropping restrictions for spring application, prior to seeding of wheat, barley and oats.

GROUP 2

REPLACES: PrePassTM Flex

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Winter wheat
- Barley
- Oats

WEEDS CONTROLLED

When mixed with glyphosate.

- Annual blue grass¹
- Annual sow thistle¹
- Canada fleabane
- Canada thistle¹
- Chickweed
- Cleavers
- Cow cockle
- Crabgrass¹
- Dandelion^{1,2}
- Downy brome
- Flixweed
- Foxtail barley¹
- Giant foxtail
- Green foxtail
- Hemp-nettle
- Kochia
- Lady's thumb
- Lamb's-quarters
- Narrow-leaved hawk's-beard
- Narrow-leaved vetch
- Persian dandel
- Prickly lettuce¹
- Quackgrass¹
- Ragweed
- Redroot pigweed
- Russian thistle
- Shepherd's purse
- Smartweed
- Stinkweed
- Toadflax¹
- Volunteer barley
- Volunteer Canola (all HT varieties)
- Volunteer flax
- Volunteer wheat
- Wild buckwheat
- Wild mustard
- Wild oats

WEEDS SUPRESSED

- Annual sow thistle
- Perennial sow thistle

¹With additional glyphosate; refer to label for rates.²Top growth control, up to 15 cm.

ACTIVE INGREDIENT

- Florasulam 50 g/L suspension concentrate (SC)

APPLICATION RATE AND
ACRES TREATED

- **Rate:** 40 mL/acre
- Acres Treated: 320 acres/case.

PACKAGE SIZE

- **Case:** 2 X 6.4 L jugs

WATER VOLUME

- Minimum 10 US gallons/acre (40 L/acre)

SURFACTANT

- Not required when used with glyphosate
- When used alone, requires Agral[®] 90 or another non-ionic surfactant at 2 L per 1,000 L water.

RAINFAST

- Minimum 2 hours



VIKING

vikingcropproduction.com



HOW VIKING FLORASULAM WORKS:

Taken up by leaves and stops growth of weeds rapidly via inhibition of the ALS enzyme. Newer leaves start to yellow and wilt, followed by a loss of green color. Symptoms will spread to the rest of the plant with some weeds showing reddening or purpling.

CROP STAGING

- **Spring:** Prior to seeding, or no later than 48 hours after seeding (before emergence)
- **Fall:** After harvest to freeze up

CROP ROTATIONS

- **1 day after application:** Wheat (spring, durum, winter), barley, or oats
- **When applied as a chem fallow treatment prior to August 1:** Wheat (spring, durum, winter), barley, canola, peas, and oats may be seeded the following spring.
- **When applied to fields after August 1:** Winter wheat may be seeded at least 1 day after application, or wheat, barley, or oats the following spring.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING 540 Glyphosate Herbicide†**

† Using K+ salt glyphosates found in 540 glyphosates may result in a paint-like solution in the spray tank

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Livestock may be grazed on treated crops 7 days following application.

PREHARVEST INTERVAL

- Allow 30 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application

STORAGE

- Store this product away from food or feed. Store in original containers in a secure, dry heated storage. Product will freeze at -10°C. If product is frozen, bring to room temperature and agitate before use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required amount of **VIKING Florasulam Herbicide** and mix thoroughly.
3. Add the required amount of **VIKING 540 Glyphosate Herbicide**.
4. Add the required amount of surfactant if needed and apply.
5. If application is paused prior to completion, agitate to re-suspend spray solution prior to commencing spraying.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur in warm moist growing conditions. Typical symptoms (discoloration) of dying weeds may not be noticeable for 1 to 2 weeks after application. Adverse growing conditions such as drought or near freezing temperatures prior to, at or following time of application may reduce weed control or increase weed re-growth. If foliage is wet at the time of application, control may be decreased. Under conditions of high weed density, control may be reduced. Weed escapes may occur under prolonged stress conditions or low fertility. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as poor control can result. Crop injury may occur when growing conditions are poor (marginal soil fertility, saline soils, waterlogged soils, drought, seedling disease) or on variable soils (eroded knolls, sidehills). Do not apply herbicides containing florasulam in-crop the same year that **VIKING Florasulam Herbicide** is applied pre-seed.

CEREAL PRE-SEED HERBICIDE

VIKING QUALITY
CERTIFIEDVIKINGTM
KIRUNA

Herbicide

FerociousTM, hard-hitting, multi-mode of action product for outstanding pre-seed control of dandelion (top growth), kochia (including group 2 resistant biotypes), narrow-leaved hawk's-beard, volunteer canola (including all HT varieties), wild buckwheat and other hard-to kill weeds when mixed with glyphosate prior to seeding wheat, barley, or oats.

GROUP 2 & 4

REPLACES: KorrexTM

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Winter wheat
- Barley
- Oats

WEEDS CONTROLLED

When mixed with glyphosate (at 180-270 grams ae/acre equivalent)

- | | |
|---|---------------------------------|
| • Annual blue grass ¹ | • Narrow-leaved vetch |
| • Annual sow thistle ¹ | • Persian darnel |
| • Canada fleabane | • Prickly lettuce ¹ |
| • Canada thistle ¹ | • Quackgrass ¹ |
| • Chickweed | • Ragweed |
| • Cleavers | • Redroot pigweed |
| • Cow cockle | • Russian thistle |
| • Crabgrass ¹ | • Scentless chamomile |
| • Dandelion ^{1,2} | • Shepherd's purse |
| • Downy brome | • Smartweed |
| • Flixweed | • Stinkweed |
| • Foxtail barley ¹ | • Toadflax ¹ |
| • Giant foxtail | • Volunteer barley |
| • Green foxtail | • Volunteer canola ⁴ |
| • Hemp-nettle | • Volunteer flax |
| • Kochia ³ | • Volunteer wheat |
| • Lady's thumb | • Wild buckwheat |
| • Lamb's-quarters | • Wild mustard |
| • Narrow-leaved hawk's-beard ¹ | • Wild oats |

WEEDS SUPRESSED

- Annual sow thistle
- Perennial sow thistle

¹ With additional glyphosate; refer to label for rates.

² Top growth control, up to 15 cm

³ Including group 2 resistant biotypes

⁴ Including all HT varieties

ACTIVE INGREDIENTS

- Dicamba 480 g/L solution (S)
- Florasulam 50 g/L suspension concentrate (SC)

APPLICATION RATE AND
ACRES TREATED:

- **Rate:** 127 mL/acre of **VIKING Dicamba Herbicide** + 40 mL/acre of **VIKING Florasulam Herbicide**
- **Acres Treated:** 160 acres/case.

PACKAGE SIZE:

- **Case:** 2 X 10.2 litre jugs **VIKING Dicamba Herbicide** + 1 X 6.4 L jug **VIKING Florasulam Herbicide**

WATER VOLUME:

- Minimum 10 US gallons/acre (40 L/acre)

SURFACTANT:

- None required when mixed with glyphosate.

RAINFAST:

- Minimum 2 hours

**VIKING**

vikingcropproduction.com



HOW VIKING KIRUNA WORKS:

Absorbed primarily through leaves and translocated in the plant, mimicking naturally occurring plant growth hormones and disrupting the affected plants metabolism, or through inhibition of the ALS enzyme depending on the weed species. Symptoms of effect will gradually spread through the plant and include reddening or purpling and/or epinasty (twisting of the stems) and swollen nodes.

CROP STAGING

- **Crop stage:** Prior to seeding, or no later than 48 hours after seeding (before emergence)
- **Weed stage:** 2- 4 leaf stage

CROP ROTATIONS:

- 1 day after application: Wheat (spring, durum, winter), barley, or oats
- All major crops may be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- **VIKING 540 Glyphosate Herbicide[†].**

[†]Using K+ salt glyphosates found in 540 glyphosates may result in a paint-like solution in the spray tank.

* When applying tank mix combinations, always follow all label requirements for each product including, Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS:

- Livestock may be grazed on treated crops 7 days following application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.

PREHARVEST INTERVAL:

- Allow 30 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application.

STORAGE:

- Store this product away from food or feed. Store in original containers in a secure, dry heated storage. Product will freeze at -10°C . If product is frozen, bring to room temperature and agitate before use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required amount of **VIKING Florasulam Herbicide** and mix thoroughly.
3. Add the required amount of **VIKING Dicamba Herbicide** and continue agitation.
4. Add the required amount of **VIKING 540 Glyphosate Herbicide**.
5. Add the required amount of surfactant and apply.
6. If application is paused prior to completion, agitate to re-suspend spray solution prior to commencing spraying.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

This product must be mixed with glyphosate. Best control will occur when applied between 10°C and 25°C in warm moist growing conditions when weeds are small and actively growing. Weeds must be emerged at the time of application in order to be affected. Typical symptoms (discoloration, curled or cupped leaves) of dying weeds may not be noticeable for 1 to 2 weeks after application, depending upon growing conditions and weed susceptibility. Control of weeds may take 3-4 weeks. Extreme growing or stress conditions such as low fertility, drought, near freezing temperatures prior to, at or following time of application may reduce weed control or increase weed re-growth. If foliage is wet at the time of application, control may be decreased. Under conditions of high weed density, control may be reduced. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as unsatisfactory control can result. Injury on crops planted after application may occur when growing conditions are poor (marginal soil fertility, saline soils, waterlogged soils, drought, seedling disease) or on variable soils (eroded knolls, sidehills). Do not use dicamba or florasulam in successive years or apply consecutively on the same field.

CEREAL PRE-SEED HERBICIDE

VIKING QUALITY
CERTIFIEDVIKINGTM
SOLNA

Herbicide

FerociousTM, effective, proven, multi-mode of action control of kochia (including group 2, 4, and 9 resistant biotypes), cleavers, wild mustard, redroot pigweed, stinkweed, and volunteer canola (including all HT varieties) plus 40 other tough to kill weeds when mixed with glyphosate, with no re-cropping restrictions, prior to seeding spring and winter wheat.

GROUP 4 & 14

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- Spring wheat
- Winter wheat

WEEDS CONTROLLED

When mixed with glyphosate acid equivalent at 0.5-0.77 L/acre (360 gm a.e./L)

- | | |
|-----------------------------------|---|
| • Annual blue grass ¹ | • Mustards (except dog and tansy) |
| • Annual sow thistle ¹ | • Narrow-leaved hawk's-beard ⁴ |
| • Bluebur | • Narrow-leaved vetch ¹ |
| • Burdock | • Persian darnel |
| • Canada fleabane | • Plantain |
| • Canada thistle ¹ | • Prickly lettuce ¹ |
| • Cleavers | • Quackgrass ¹ |
| • Cocklebur | • Redroot pigweed |
| • Common ragweed | • Russian pigweed |
| • Crabgrass ¹ | • Russian thistle |
| • Dandelion ^{1,2} | • Shepherd's purse ⁵ |
| • Daisy fleabane | • Stinkweed |
| • Downy brome | • Thyme-leaved spurge |
| • Eastern black nightshade | • Volunteer barley |
| • False ragweed | • Volunteer canola ⁶ |
| • Flixweed | • Volunteer flax |
| • Foxtail barley ¹ | • Volunteer wheat |
| • Giant foxtail | • Wild buckwheat |
| • Goat's beard | • Wild mustard |
| • Green foxtail | • Wild oats |
| • Hemp-nettle | • Wild radish |
| • Kochia ³ | • Wild sunflower |
| • Lady's thumb | |
| • Lamb's-quarters | |
| • Morning glory | |

¹ With the addition of extra glyphosate; refer to label to rates

² Seedling and over-wintered rosettes only

³ Including group 2, 4, and 9 resistant biotypes

⁴ Use the higher glyphosate rate if weeds are 8-15 cm in height

⁵ Spring seedlings

⁶ Including all HT varieties

ACTIVE INGREDIENTS

- Carfentrazone-ethyl 240 g/L emulsifiable concentrate (EC)
- 2,4-D ester 660 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND
ACRES TREATED:

- **Rate:** 30 mL/acre of **VIKING Carfentrazone Herbicide** + 245 mL/acre of **VIKING 2,4-D Ester 700 Herbicide**.
- **Acres Treated:** 80 acres/case.

PACKAGE SIZE:

- **Case:** 2.4 L jug **VIKING Carfentrazone Herbicide** + 2 x 9.8 L jugs **VIKING 2,4-D Ester 700 Herbicide**.

WATER VOLUME:

- Minimum 10 US gallons/acre (40 L/acre)

SURFACTANT:

- Not required when used with glyphosate.

RAINFAST:

- Minimum 2 hours



VIKING

vikingcropproduction.com



HOW VIKING SOLNA WORKS:

VIKING Solna Herbicide is a combination of a contact and systemic herbicide for broadleaf weed control. Carfentrazone (group 14) inhibits the protoporphyrinogen oxidase (PPO) enzyme, which results in cell membrane destruction and necrosis, while 2,4-D ester (group 4) mimics the plant growth regulator indol-3-acetic acid (auxin), interfering with cell enlargement and division in susceptible plants. Symptoms appear very rapidly with leaves of weeds taking on a water-soaked appearance, followed by wilting and necrosis. Complete death occurs within a few days depending on growing conditions.

CROP STAGING

- **Crop stage:** prior to seeding
- **Weed stage:** when weeds are small and actively growing.

CROP ROTATIONS:

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- **VIKING 540 Glyphosate Herbicide.**

GRAZING RESTRICTIONS:

- Graze lactating dairy animals 7 days after application.
- Meat animals must be withdrawn from treated fields 3 days before slaughter.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

PREHARVEST INTERVAL:

- Mature crops can be harvested 30 days after application.

STORAGE:

- Store this product away from food or feed. Store in original containers only. Store in a cool, dry place and avoid excess heat.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required amount of **VIKING Carfentrazone Herbicide.**
3. Add the required amount of **VIKING 2,4-D Ester 700 Herbicide.**
4. Add the required amount of **VIKING 540 Glyphosate Herbicide.**
5. Add surfactant if required, then complete filling tank and apply.
6. If application is paused prior to completion, agitate to re-suspend spray solution prior to commencing spraying.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

This product must be mixed with glyphosate. Best control will occur when applied between 12°C and 24°C in good growing conditions when weeds are small and actively growing. Under warm moist conditions herbicide symptoms may be accelerated. Good coverage of weeds is essential; product is primarily absorbed by the leaves of plants, due to rapid absorption by leaves, translocation is very limited. Weeds that have not emerged will not be controlled. Typical symptoms (rapid browning, necrosis) occurs rapidly within hours after application with control several days or longer depending on conditions. Extreme weather conditions such as temperature, drought, excess moisture, soil conditions and cultural practices may reduce herbicide activity. Do not apply **VIKING Solna Herbicide** more than once per growing season.

PULSE AND SPECIAL CROP
PRE-SEED HERBICIDE

VIKINGTM
SORØ

Herbicide

**VIKING QUALITY
CERTIFIED**

FerociousTM, effective, and proven control of kochia (including group 2,4 and 9 resistant biotypes), redroot pigweed, lamb's-quarters, wild buckwheat, common purslane and 15 other tough to kill broadleaf weeds when mixed with glyphosate plus 2 group 14 modes of action for resistance management, a broader spectrum of weeds control, and use in different soil zones prior to seeding chickpea, field pea, flax, sunflower and soybean.

GROUP 14

REPLACES: Authority StrikeTM

REGISTERED CROPS AND USES

- Chickpea
- Flax
- Soybean
- Field pea
- Sunflower

WEEDS CONTROLLED*

* with the addition of glyphosate at 325 g a.i. per acre):

- Cleavers²
- Common groundsel¹
- Common purslane¹
- Common waterhemp¹
- Eastern black nightshade¹
- Flixweed²
- Kochia^{1,3}
- Lamb's-quarters¹
- Large crabgrass¹
- Powell pigweed¹
- Redroot pigweed¹
- Round-leaved mallow²
- Russian thistle²
- Shepherd's purse²
- Smooth crabgrass¹
- Stinkweed²
- Volunteer canola^{2,4}
- Wild buckwheat¹
- Yellow woodsorrel¹

¹ Controlled pre-emergence

² Controlled post-emergence (see **VIKING Carfentrazone Herbicide** label for the maximum size of each weed controlled).

³ Including group 2, 4 and 9 resistant biotypes

⁴ Including all HT varieties

ACTIVE INGREDIENTS

- Carfentrazone 240 g/L emulsifiable concentrate (EC)
- Sulfentrazone 480 g/L suspension (S)

APPLICATION RATE AND ACRES TREATED

- **Application Rate:** 30 mL/acre **VIKING Carfentrazone Herbicide** + 118 mL/acre **VIKING Sulfentrazone Herbicide**
- **Acres Treated:** 160 acres/case

PACKAGE SIZE

- **Case:** 1 x 4.8 jug **VIKING Carfentrazone Herbicide** + 2 X 9.4 L jugs **VIKING Sulfentrazone Herbicide**

WATER VOLUME

- **Ground application:** 10 US gallons/acre (40L/acre)
- Do not apply by air.

SURFACTANT

- None required when mixed with glyphosate.
- None required when mixed with glyphosate. If used alone add Agral® 90 or AgSurf® at 0.25% v/v.

RAINFAST

- Minimum 1 hour



VIKING

vikingcropproduction.com



HOW VIKING SORØ WORKS:

VIKING Sorø Herbicide contains 2 group 14 herbicide active ingredients. The sulfentrazone component is primarily taken up by the roots of treated plants. It controls weeds through the process of protoporphyrinogen oxidase inhibition (membrane disruption), a mode of action commonly referred to as PPO inhibition. Plants emerging from treated soil turn necrotic and die after exposure to light. The carfentrazone component is rapidly absorbed by foliage and inhibits the PPO enzyme involved in chlorophyll and heme synthesis. This action results in leaky cell membranes and rapid browning and death. Initial symptoms of carfentrazone activity are observed within hours and death occurs within a few days.

CROP ROTATIONS

Rotational Crop	Replant Interval (Months)
Chickpea, field pea, flax, soybean, sunflowers	0
Alfalfa, barley, field corn, spring and durum wheat	12
Winter wheat	16
Sweet and popcorn, sorghum, canola	24
Lentils	36

For crops listed in the above rotational crop table, the minimum replant interval listed in the table must be observed. For crops not listed in the rotational crop table, A MINIMUM ROTATIONAL CROP INTERVAL OF 36 MONTHS must be observed, and a representative bioassay of the field must be conducted with the rotational crop and adequate soil moisture to evaluate potential crop sensitivity.

If there is a lack of adequate or normal soil moisture due to drought conditions following an application of **VIKING Sorø Herbicide**, the minimum rotational crop interval listed in the table must be extended for one additional year and a representative bioassay of the field must be conducted with the potential rotational crop and adequate soil moisture to determine the crop sensitivity to **VIKING Sorø Herbicide**.

Replanting Instructions

If initial planting of labeled crops fails to produce a stand, only labeled crops for **VIKING Sorø Herbicide** may be planted. Do not re-treat fields with **VIKING Sorø Herbicide**. Do not plant treated fields with any crop at intervals that are inconsistent with the Rotational Crop Guidelines listed here or on the product labels. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

CROP STAGING

- **Spring application:** pre-plant or pre-emergence prior to seeding or up to three days after seeding but prior to weed emergence.
- **Warning:** If post-seeding application is delayed, injury may occur if seeds are germinating or if they are located near the soil surface.

REGISTERED AND SUPPORTED TANK MIXES*

- **Viking 540 Glyphosate Herbicide**

GRAZING RESTRICTIONS

- No guidelines listed on the product label.

PREHARVEST INTERVAL

- No guidelines listed on the product label.

STORAGE

- Store this product away from food or feed. Store above 5°C to keep product from freezing. If product is frozen, thaw before use. If solid crystals are observed, warm material to above 15 °C by placing container in warm location. Shake or roll container periodically to re-dissolve solids.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. Add the required amount of **Viking Sulfentrazone Herbicide** and agitate.
3. Add the required amount of **VIKING Carfentrazone Herbicide** and continue agitation.
4. If required, add correct amount of tank mix partners.
5. If required, add correct amount of surfactant.
6. Fill the remainder of the tank with water and apply.
7. If application is stopped prior to completion, resuspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

All applications of **VIKING Sorø Herbicide** require a minimum of 13 mm of rain or irrigation water, at once, for proper activation. If the required amount of moisture is not received within 14 days of application weed control may be reduced. Do not mechanically incorporate after application as this can destroy the herbicide barrier and allow weeds to escape the treatment. Do not apply to frozen soils or existing snow cover to prevent runoff. Do not apply **VIKING Sorø Herbicide** in consecutive years (24 months). The 24-month period is considered to begin when the initial application of sulfentrazone is applied. In case of drought in any of those years, a subsequent application of **VIKING Sorø Herbicide** should be further delayed. Do not apply to soils classified as coarse-textured. Do not apply to soil with an organic matter content less than 1.5% or greater than 6%. Do not use on soils with a pH of 7.8 or greater. If using irrigation with water that has a pH greater than 7.5, please review the label for adverse crop response. Dry weather conditions as well as excessive rainfall or irrigation following application may reduce weed control. Crop injury may also occur in years with heavier than normal rainfall. Do not store the sprayer overnight or for an extended period of time with the spray mixture in the tank.

PULSE AND SPECIAL CROP
PRE-SEED HERBICIDE

VIKING QUALITY
CERTIFIED

VIKINGTM SULFENTRAZONE

Herbicide

FerociousTM, effective and proven control or suppression of 12 broadleaf weeds including kochia (including group 2,4 and 9 resistant biotypes), redroot pigweed, lamb's-quarters, wild buckwheat, and other tough to kill broadleaf weeds plus a group 14 mode of action for resistance management, use in different soils zones, and tank mix options prior to seeding chickpea, field pea, flax, sunflower and soybean.

GROUP 14

REPLACES: AuthorityTM

REGISTERED CROPS AND USES

- Chickpea
- Field pea
- Flax
- Sunflower
- Soybean

WEEDS CONTROLLED*

(at 118 mL/acre)

- Common groundsel
- Common purslane
- Common waterhemp
- Eastern black nightshade
- Kochia¹
- Lamb's-quarters
- Large crabgrass
- Powell pigweed
- Redroot pigweed
- Smooth crabgrass
- Wild buckwheat
- Yellow woodsorrel

*pre-emergent weed control only. Weeds that have already emerged will not be controlled.
¹Including group 2, 4 and 9 resistant biotypes

ACTIVE INGREDIENTS

- Sulfentrazone 480 g/L suspension

APPLICATION RATE AND ACRES TREATED

- **Application Rate:** 118 mL/acre
- **Acres Treated:** 160 acres

PACKAGE SIZE

- **Case:** 2 X 9.4 L jugs

WATER VOLUME

- **Ground application:** 10 US gallons/acre (40L/acre)
- Do not apply by air.

SURFACTANT

- None required when mixed with glyphosate

RAINFAST

- Minimum 1 hour

CROP ROTATIONS

Rotational Crop	Replant Interval (Months)
Chickpea, field pea, flax, soybean, sunflowers	0
Alfalfa, barley, field corn, spring and durum wheat	12
Winter wheat	16
Sweet and popcorn, sorghum, canola	24
Lentils	36

For crops listed in the above rotational crop table, the minimum replant interval listed in the table must be observed. For crops not listed in the rotational crop table, A MINIMUM ROTATIONAL CROP INTERVAL OF 36 MONTHS must be observed, and a representative bioassay of the field must be conducted with the rotational crop and adequate soil moisture to evaluate potential crop sensitivity.

If there is a lack of adequate or normal soil moisture due to drought conditions following an application of **VIKING Sulfentrazone Herbicide**, the minimum rotational crop interval listed in the table must be extended for one additional year and a representative bioassay of the field must be conducted with the potential

rotational crop and adequate soil moisture to determine the crop sensitivity to **VIKING Sulfentrazone Herbicide**.

Replanting Instructions

If initial planting of labeled crops fails to produce a stand, only labeled crops for **VIKING Sulfentrazone Herbicide** may be planted. Do not re-treat fields with VIKING Sulfentrazone Herbicide. Do not plant treated fields with any crop at intervals that are inconsistent with the Rotational Crop Guidelines listed here or on the product label. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.



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HOW VIKING SULFENTRAZONE WORKS:

The group 14 active ingredient in **VIKING Sulfentrazone Herbicide** is primarily taken up by the roots of treated plants. It controls weeds through the process of protoporphyrinogen oxidase inhibition (membrane disruption), a mode of action commonly referred to as PPO inhibition. Plants emerging from treated soil turn necrotic and die after exposure to light. Soil applications of **VIKING Sulfentrazone Herbicide** require adequate moisture (at least 13 mm at once within 2 weeks of application) for optimum control. When activating moisture is delayed, a reduced level of weed control may occur.

CROP STAGING

- **Spring application:** pre-plant or pre-emergence prior to seeding or up to three days after seeding but prior to weed emergence.
- **Warning:** If post-seeding application is delayed, injury may occur if seeds are germinating or if they are located near the soil surface.

REGISTERED AND SUPPORTED TANK MIXES*

- **All crops:** **Viking 540 Glyphosate Herbicide**, **VIKING Carfentrazone Herbicide**
- **Field pea and soybean only:** **Viking 540 Glyphosate herbicide + VIKING Tribenuron Herbicide**. Fields treated with this tank mix in the spring can be seeded to field pea or soybean a minimum of 24 hours after application.

GRAZING RESTRICTIONS

- No guidelines listed on the product label.

PREHARVEST INTERVAL

- No guidelines listed on the product label.

STORAGE

- Store this product away from food or feed. Store above 5°C to keep product from freezing. If product is frozen, thaw before use. If solid crystals are observed, warm material to above 15 °C by placing container in warm location. Shake or roll container periodically to re-dissolve solids.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. If required, add the required amount of dry product and agitate until dissolved.
3. Add the required amount of **VIKING Sulfentrazone Herbicide** and agitate until dissolved.
4. If required, add correct amount of tank mix partners.
5. If required, add correct amount of surfactant.
6. Fill the remainder of the tank with water and apply.
7. If application is stopped prior to completion, resuspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

All applications of **VIKING Sulfentrazone Herbicide** require a minimum of 13 mm of rain or irrigation water, at once, for proper activation. If the required amount of moisture is not received within 14 days of application weed control may be reduced. Do not mechanically incorporate after application as this can destroy the herbicide barrier and allow weeds to escape the treatment. Do not apply to frozen soils or existing snow cover to prevent runoff. Do not apply **VIKING Sulfentrazone Herbicide** in consecutive years (24 months). The 24-month period is considered to begin when the initial application of sulfentrazone is applied. In case of drought in any of those years, a subsequent application of **VIKING Sulfentrazone Herbicide** should be further delayed. Do not apply to soils classified as coarse-textured. Do not apply to soil with an organic matter content less than 1.5% or greater than 6%. Do not use on soils with a pH of 7.8 or greater. If using irrigation with water that has a pH greater than 7.5, please review the label for adverse crop response. Dry weather conditions as well as excessive rainfall or irrigation following application may reduce weed control. Do not store the sprayer overnight or for an extended period of time with a sulfentrazone spray mixture in the tank.

CEREAL PRE-SEED HERBICIDE

VIKING QUALITY
CERTIFIED

VIKING™ TRIBENURON

Herbicide

Ferocious™, systemic, pre-seed control of dandelion, narrow-leaved hawk's-beard, flixweed, and stinkweed, hemp-nettle, volunteer canola (including all HT varieties), and other tough-to-kill broadleaf weeds when mixed with glyphosate prior to seeding spring wheat, durum wheat and barley.

GROUP 2

REPLACES: Express®

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley

WEEDS CONTROLLED

When mixed with glyphosate acid equivalent at 0.5 L/acre (360 gm a.i.)

Weeds up to 8 cm

- Canada fleabane
- Common ragweed
- Narrow-leaved hawk's-beard

Weeds up to 3 leaf

- Cow cockle
- Wild buckwheat

Rosette

- Canada thistle¹

Weeds up to 15 cm

- Dandelion
- Downy brome
- Flixweed
- Giant foxtail
- Green foxtail
- Hemp-nettle
- Kochia
- Lady's thumb
- Lamb's-quarters
- Persian dandelion
- Redroot pigweed
- Russian thistle
- Stinkweed
- Volunteer barley
- Volunteer canola²
- Volunteer flax
- Volunteer wheat
- Wild mustard
- Wild oats

¹ Suppression

² Including all HT varieties

ACTIVE INGREDIENT

- Tribenuron-Methyl 75% dry flowable (DF)

APPLICATION RATE AND ACRES TREATED

- **Rate:** 4 grams/acre
- **Acres Treated:** 80 acres/case

PACKAGE SIZE

- 320 gram bottle

WATER VOLUME

- 5-10 US gallons/acre (20 – 40 L/acre)

SURFACTANT

- None required when mixed with glyphosate.
- If used alone Agral® 90 at 2 L per 1,000 L water.

RAINFAST

- Minimum 1 hour

**VIKING**

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HOW VIKING TRIBENURON WORKS:

Taken up by leaves and stops growth of weeds rapidly via inhibition of the ALS enzyme. Newer leaves start to yellow and wilt, followed by a loss of green color. Symptoms will spread to the rest of the plant with some weeds showing purpling, reddening, or orange discoloration.

CROP STAGING

- Apply up to 1 day prior to seeding.

CROP ROTATIONS

- **1 day after application:** Spring wheat, durum wheat, or barley
- **2 months after application:** Canola, flax, lentils, or alfalfa.
- No restrictions the following crop year

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING 540 Glyphosate Herbicide**

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- No grazing restrictions.

PREHARVEST INTERVAL

- No preharvest interval for registered crops.

STORAGE

- Store product in original container in a secure, dry area, away from fertilizer, seed, food or feed. Product can be frozen.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required amount of **VIKING Tribenuron Herbicide** and agitate until product is fully dissolved.
3. Add the required amount of **VIKING 540 Glyphosate Herbicide**.
4. Add required amount of surfactant, then fill the tank with the balance of required water and apply.
5. Product must be applied within 24 hours in order to remain effective.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Use 50 mesh or larger screens in spraying equipment. Optimum weed control will occur during warm moist conditions when weeds are actively growing. For best results, ensure thorough spray coverage of target weeds, use higher water volumes for heavier weed pressure. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and regrowth may occur. Application to crops that are stressed by severe weather conditions, cold weather, frost, low fertility, drought, water-logged soil (soil at or near field capacity), disease or insect damage may result in crop injury. Do not use on highly variable soils that have large gravelly or sandy areas, eroded knolls, calcium deposits, or soils with less than 3% organic matter, as risk of crop damage will increase.

CANOLA PRE-SEED HERBICIDE

VIKING QUALITY
CERTIFIEDVIKINGTM
VARDO

Herbicide

FerociousTM, proven, multi-mode control of kochia (including group 2, 4 and 9 resistant biotypes), lamb's quarters, redroot pigweed, and volunteer canola (including all HT varieties), plus control or suppression of 28 additional annual grass and broadleaf weeds with no re-cropping restrictions when mixed with glyphosate prior to seeding canola.

GROUP 6 & 14

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- All varieties of canola

WEEDS CONTROLLED

(with the addition of glyphosate at 325 g a.i. per acre)

Grass Weeds: Up To 8 Cm In Height Unless Otherwise Noted

- | | |
|------------------------------------|-------------------------------------|
| • Annual blue grass | • Persian dandel (up to 15 cm high) |
| • Crab grass | • Volunteer barley |
| • Downy brome (up to 15 cm high) | • Volunteer wheat |
| • Green foxtail | • Wild oats |
| • Giant foxtail (up to 15 cm high) | |

Grass Weeds: Up To 8 Cm In Height Unless Otherwise Noted

- | | |
|--------------------------------------|---|
| • Annual sow thistle | • Russian thistle (up to 15 cm high) |
| • Canada fleabane | • Shepherd's purse thistle (up to 15 cm high) |
| • Cleavers | • Stinkweed |
| • Common ragweed | • Tall waterhemp |
| • Eastern nightshade | • Volunteer |
| • Flixweed | • Velvetleaf |
| • Hemp-nettle (up to 15 cm high) | • Volunteer Canola ² |
| • Kochia ¹ | • Volunteer flax (up to 15 cm high) |
| • Lady's thumb | • Wild buckwheat (1-4 leaf) |
| • Lamb's-quarters | • Wild mustard |
| • Morning glory | |
| • Narrow-leaved hawk's beard | |
| • Prickly lettuce | |
| • Redroot pigweed (up to 15 cm high) | |

¹ Including group 2, 4 and 9 resistant biotypes)

² Including all HT varieties.

ACTIVE INGREDIENTS

- Bromoxynil 280 g/L emulsifiable concentrate (EC)
- Carfentrazone-ethyl 240 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND
ACRES TREATED:

- **Rate:** 30 mL/acre **VIKING Carfentrazone Herbicide** + 202 mL/acre **VIKING Bromoxynil Herbicide**
- **Acres Treated:** 80 acres/case.

PACKAGE SIZE:

- **Case:** 2.4 L jug **VIKING Carfentrazone Herbicide** + 2 x 8.1 L jug **VIKING Bromoxynil Herbicide**

WATER VOLUME:

- Minimum 10 US gallons/acre (40 L/acre)

SURFACTANT:

- Not required when used with glyphosate.

RAINFEST:

- Minimum 1 hour



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HOW VIKING VARDO WORKS:

Contact herbicide that contains 2 different modes of action that are primarily absorbed by the leaves of plants. Typical symptoms are rapid browning and necrosis which occurs rapidly within hours after application with control taking several days to one week.

CROP STAGING

- **Crop stage:** immediately prior to seeding
- **Weed stage:** see product labels for weed specific staging information.

CROP ROTATIONS:

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- **VIKING 540 Glyphosate Herbicide.**

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS:

- Do not graze the treated crop or cut for feed.

PREHARVEST INTERVAL:

- No preharvest interval indicated.

STORAGE:

- Store this product away from food or feed. Store in original containers only. Store in a cool, dry place and avoid excess heat.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required amount of **VIKING Carfentrazone Herbicide.**
3. Add the required amount of **VIKING Bromoxynil Herbicide.**
4. Add the required amount of **VIKING 540 Glyphosate Herbicide.**
5. Add any other liquid formulation tank mix products.
6. Add surfactant if required, then complete filling tank and apply.
7. If application is paused prior to completion, agitate to re-suspend spray solution prior to commencing spraying.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

This product must be mixed with glyphosate. Best control will occur when applied between 12°C and 24°C in warm, moist, sunny conditions when weeds are small and actively growing. As with other contact herbicides, the best results will be achieved if applied in the heat of the day with adequate water volume and appropriate sprayer settings and speed for good coverage. Good coverage of weeds is essential; **VIKING Vardo Herbicide** is a contact herbicide only, due to rapid absorption by leaves, translocation is very limited. Weeds that have not emerged will not be controlled. Typical symptoms of control (browning) appear rapidly after application, with susceptible plants becoming malformed and complete control occurring within a few days. Weed control may be reduced if weeds are stressed by conditions such as drought, waterlogged soils, or excessively cold or hot temperatures.

CEREAL PRE-SEED HERBICIDE

VIKINGTM VISBY

Herbicide

VIKING QUALITY
CERTIFIED

FerociousTM, systemic, pre-seed control or suppression of wild oats (suppression), dandelion, narrow-leaved hawk's-beard, flixweed, stinkweed, hemp-nettle, volunteer canola (including all HT varieties), and other tough-to-kill broadleaf weeds when mixed with glyphosate prior to seeding spring wheat.

GROUP 2

REPLACES: Inferno[®] Duo

REGISTERED CROPS AND USES

- Spring Wheat

WEEDS CONTROLLED

(when mixed with glyphosate acid equivalent at 0.5 L/acre (360 gm a.i.):

Weeds up to 8 cm

- Canada fleabane
- Common ragweed
- Narrow-leaved hawk's-beard

Weeds up to 3 leaf

- Cow cockle
- Wild buckwheat

Rossette

- Canada thistle¹

Weeds up to 15 cm

- Dandelion
- Downy brome
- Flixweed
- Giant foxtail
- Green foxtail
- Hemp-nettle
- Kochia
- Lady's thumb
- Lamb's-quarters
- Persian darnel
- Redroot pigweed
- Russian thistle
- Stinkweed
- Volunteer barley
- Volunteer canola²
- Volunteer flax
- Volunteer wheat
- Wild mustard
- Wild oats

¹ Suppression² Including all HT varieties

ACTIVE INGREDIENTS

- Tribenuron-Methyl 75% dry flowable (DF)
- Flucarbazone 66% water dispersible granule (WDG)

APPLICATION RATE AND ACRES TREATED

- **Rate:** 4 grams/acre **VIKING Tribenuron Herbicide** + 8.7 grams/acre **VIKING Flucarbazone Herbicide**.
- **Acres Treated:** 80 acres/case.

PACKAGE SIZE

- 320 gram bottle **VIKING Tribenuron Herbicide** + 695 gram bottle **VIKING Flucarbazone Herbicide**

WATER VOLUME

- 5-10 US gallons/acre (20 – 40 L/acre)

SURFACTANT

- None required when mixed with glyphosate.
- If used alone Agrab[®] 90 at 2 L per 1,000 L water.

RAINFAST

- Minimum 1 hour

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HOW VIKING VISBY WORKS:

Taken up by leaves and stops growth of weeds rapidly via inhibition of the ALS enzyme. Newer leaves start to yellow and wilt, followed by a loss of green color. Symptoms will spread to the rest of the plant with some weeds showing purpling, reddening, or orange discoloration.

CROP STAGING

- **Crop stage:** Apply up to 1 day prior to seeding.
- **Weed stage:** See “Weeds Controlled” section for weed staging.

CROP ROTATIONS

Re-Cropping Options By Soil Zone

Grey Wooded	Black	Dark Brown	Brown
Spring wheat	Spring wheat	Spring wheat	Spring wheat
Barley	Barley	Barley	
Canola	Canola	Canola	
Field peas*	Field peas*	Field peas*	
	Field beans	Flax	
	Flax	Durum wheat	
	Durum wheat		

* Field peas can be successfully grown the year after application of **VIKING Visby Herbicide** provided the following three criteria are met:

- Soil pH must be below 7.5.
- Organic matter content must be above 4%.
- Precipitation must be equal to or above the 10-year average (minimum 100 mm) within 60 days of application in the year of application.
- Or fields can be summerfallowed.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING 540 Glyphosate Herbicide**

GRAZING RESTRICTIONS

- Do not graze treated fields or use green crop for feed. Wheat grain or straw from harvested treated fields may be fed to livestock.

PREHARVEST INTERVAL

- Harvest mature crop 80 days after application.

STORAGE

- Store product in original container in a secure, dry area, away from fertilizer, seed, food or feed. Product can be frozen.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required amount of **VIKING Tribenuron Herbicide** and agitate until product is fully dissolved.
3. Add the required amount of **VIKING Flucarbazone Herbicide** and agitate until product is fully dissolved.
4. Add the required amount of **VIKING 540 Glyphosate Herbicide**.
5. Add required amount of surfactant, then fill the tank with the balance of required water and apply.
6. Product must be applied within 24 hours in order to remain effective.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Use 50 mesh or larger screens in spraying equipment. Optimum weed control will occur during warm moist conditions when weeds are actively growing. For best results, ensure thorough spray coverage of target weeds, use higher water volumes for heavier weed pressure. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and regrowth may occur. Application to crops that are stressed by severe weather conditions, cold weather, frost, low fertility, drought, water-logged soil (soil at or near field capacity), disease or insect damage may result in crop injury. Do not use on highly variable soils that have large gravelly or sandy areas, eroded knolls, calcium deposits, or soils with less than 3% organic matter, as risk of crop damage will increase.

CEREAL PRE-SEED HERBICIDE

VIKINGTM YSTAD

Herbicide

VIKING QUALITY
CERTIFIED

FerociousTM, fast, and proven with two modes of action including higher rates of carfentrazone and dicamba for effective pre-seed control of kochia (including group 2, 4 and 9 resistant biotypes), flixweed, stinkweed, volunteer canola (including all HT varieties) and 21 other tough-to-kill broadleaf weeds when mixed with glyphosate prior to seeding spring wheat, durum wheat, barley, rye or field corn.

GROUP 4 & 14

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Winter wheat
- Barley
- Field corn

WEEDS CONTROLLED

(when mixed with glyphosate acid equivalent at 183-364 g a.e./acre):

- Canada thistle¹
- Carpetweed
- Cleavers (1 to 4 whorls)
- Common groundsel
- Common purslane
- Common waterhemp
- Cocklebur
- Cow cockle
- Curled dock*
- Down brome
- Eastern black nightshade
- English daisy
- Field bindweed
- Flixweed
- Green foxtail
- Jimsonweed
- Kochia²
- Lady's - thumb
- Tall waterhemp
- Tansy ragwort
- Velvetleaf
- Volunteer canola³
- Volunteer cereals
- Wild buckwheat
- Wild mustard

¹ top growth control only.² Including group 2, 4, and 9 resistant biotypes³ Including all HT varieties

ACTIVE INGREDIENTS

- Carfentrazone 240 g/L emulsifiable concentrate (EC)
- Dicamba 480 g/L solution (S)

APPLICATION RATE AND ACRES TREATED:

- 30 mL/acre of **VIKING Carfentrazone Herbicide** + 127 mL/acre **VIKING Dicamba Herbicide**
- **Acres Treated:** 160 acres/case.

PACKAGE SIZE:

- Case: 1 X 4.8 litre jug **VIKING Carfentrazone Herbicide** + 2 X 10.2 litre jugs **VIKING Dicamba Herbicide**

WATER VOLUME:

- Minimum 10 US gallons/acre (40 L/acre)

SURFACTANT:

- None required when mixed with glyphosate.

RAINFALL:

- Minimum 1 hour



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HOW VIKING YSTAD WORKS:

VIKING Ystad Herbicide contains two active ingredients with contact and systemic modes of action. This combination of active ingredients is rapidly absorbed by foliage and roots, inhibits cell elongation and disrupts metabolism stopping the growth of susceptible weeds almost immediately. This action results in leaky cell membranes and rapid browning and death. The dicamba component mimics plant growth regulators causing swelling, thickening and twisted weed growth followed by yellowing and browning, resulting in plant mortality. Degree of control and duration of effect depends on weed sensitivity, weed size, spray coverage and growing conditions.

CROP STAGING

- Apply when weed seedlings have emerged and are actively growing. Weeds that have not emerged will not be controlled.

CROP ROTATIONS:

- All major crops may be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- **VIKING 540 Glyphosate Herbicide**

GRAZING RESTRICTIONS:

- Lactating dairy animals may graze fields 7 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

PREHARVEST INTERVAL:

- Harvest forage or cut hay 30 days after application.

STORAGE:

- Store product in original containers in a secure, dry area, away from fertilizer, seed, food or feed. If liquid component is frozen, warm gently and shake before use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required amount of **VIKING Dicamba Herbicide**.
3. Add the required amount of **VIKING Carfentrazone Herbicide**.
4. Add the required amount of **VIKING 540 Glyphosate Herbicide**.
5. Add the required amount of surfactant, then fill the tank with the balance of required water and apply.
6. Product must be applied within 24 hours in order to remain effective.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

This product must be mixed with glyphosate.. Best control will occur when applied between 10° and 25° C in warm moist growing conditions when weeds are small and actively growing. Degree and duration of control will depend on weed sensitivity, weed size, spray coverage and growing conditions. Always ensure thorough spray coverage of target weeds. Typical symptoms (discoloration, curled leaves, twisted stems, swollen nodes, or cupped leaves) of dying weeds may not be noticeable for 10 – 14 days after application depending upon growing conditions. Control of weeds may take 3-4 weeks. Avoid application when crop is under stress from adverse environmental conditions. Do not spray if risk of frost or severe drop in nighttime temperatures is forecast. Under certain stress conditions, such as drought, cool temperatures or where extremely hard water (> 700 ppm Ca + Mg) will be used, use 5 US gallons/acre of water to help improve results. For field corn, do not use on sandy or sandy loam soil with less than 2.5% organic matter. Dicamba may drift into susceptible crops and result in injury - do not apply in conditions favoring thermal inversions, or when winds are blowing towards susceptible plants.

GRASS CONTROL HERBICIDE

VIKING QUALITY
CERTIFIED

VIKING™ CLETHODIM

Herbicide

Ferocious™, outstanding, reliable wild oat and grass weed control with convenient low use rates and a wide window of application for use on canola (all types), pulse crops, flax and other crops.

GROUP 1

REPLACES: Centurion®

REGISTERED CROPS AND USES

- Canola
- Flax
- Field peas
- Chickpeas
- Lentils
- Dry beans
- Soybeans
- Mustard
- Seedling alfalfa
- Sunflowers
- Potatoes
- Dry onions
- See product label for complete list of registered crops.

WEEDS CONTROLLED

At 76 mL/acre rate (40 acres/case):

- Wild oats
- Volunteer cereals (wheat, barley, oats)
- Green foxtail
- Yellow foxtail
- Persian dandelion
- Crabgrass (smooth and large)
- Proso millet
- Witchgrass
- Fall panicum
- Barnyard grass
- Volunteer corn
- Volunteer canary grass
- Quackgrass (suppression)

ACTIVE INGREDIENT

- Clethodim: 240 g/L emulsifiable concentrate

APPLICATION RATE AND ACRES TREATED

- **Rate:** 50-150 mL/acre (76 mL/acre is a common use rate)
- **Acres treated:** 20-60 acres/jug (40 acres/jug is a common use rate)
- See "weeds controlled" section or product label for weed-specific application rates.

PACKAGE SIZE

- **Case:** 3 L jug + 9 L jug surfactant

WATER VOLUME

- **Ground:** 5 - 20 US gallons/acre (20 - 40 L/acre)
- **Aerial:** 3 - 6 US gallons/acre (12 - 24 L/acre)
- See label for crop specific application guidelines.

SURFACTANT

- Included
- Use rate is 5 - 10 L per 1,000 L water (0.5% v/v)

RAINFAST

- Minimum 1 hour


VIKING
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HOW VIKING CLETHODIM WORKS:

A non-selective, systemic herbicide that moves from the foliage into the growing points of leaves, shoots and roots and kills the entire plant. Thorough coverage of susceptible weeds and good growing conditions are required for optimum control.

CROP STAGING

- **Crop stage:**
Canola, flax, Field peas, chickpeas, lentils, dry beans, soybeans, mustard, seedling alfalfa, sunflowers, potatoes, dry onions: All stages of growth.
Chickpeas: Up to 9 nodes
- **Weed stage:** 2 – 6 leaf unless otherwise indicated

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **Glyphosate tolerant canola:** VIKING 540 Glyphosate Herbicide, VIKING Clopyralid Herbicide
- **LibertyLink® canola:** VIKING Glufosinate 150 Herbicide
- **Flax:** VIKING Clopyralid Herbicide, VIKING Drammen Herbicide, VIKING Herbicide
- **Field peas:** VIKING Bentazon Herbicide, VIKING Imazamox Herbicide, VIKING Imazethapyr Herbicide
- **Clearfield® Lentils:** VIKING Imazamox Herbicide
- **Glyphosate tolerant soybeans:** VIKING 540 Glyphosate Herbicide
- Please consult the product label for additional tank mixes, application rates and use guidelines.

GRAZING RESTRICTIONS

- Treated fields may be grazed or harvested for forage or hay for 60 days after application for annual crops or 30 days for seedling alfalfa.

PREHARVEST INTERVAL

See table below for pre-harvest interval by crop.

PRE-HARVEST AND GRAZING INTERVALS IN DAYS

CROP	PHI
Chickpeas	60
Canola	60
Dry beans	60
Lentils	60
Field peas	75
Flax	60
Seedling alfalfa	30
Soybeans	75
Mustard	60

STORAGE

- To prevent contamination, store this product away from food or feed. Heated storage is not required. If product is frozen warm to room temperature and agitate before use.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. If required, add the correct amount of dry formulation tank mix partners.
3. If required add the correct amount of liquid formulation tank mix partners.
4. Add the correct amount of **VIKING Clethodim Herbicide**, followed by required amount of surfactant.
5. Fill the spray tank and apply product.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when applied between 12°C and 24°C in warm moist growing conditions when weeds are small and actively growing. Higher use rates are required for bigger weeds. Typical symptoms (discoloration) of dying weeds may not be visible for 1-3 weeks after application, depending on the grass species and growing conditions. Control of weeds may take up to 4 weeks. Control will be reduced if plants are stressed by drought, excessive moisture, low temperature and/or very low relative humidity. Regrowth by tillering may occur if application is made under any of the above stress conditions. In wide row crops with open crop canopy, cultivation may be necessary to control grasses that emerge after treatment.

GRASS CONTROL HERBICIDE

VIKING™ CLODINAFOP

Herbicide

Ferocious™, trusted and proven control of wild oats and grass weeds plus a long list of tank mix options and excellent crop safety for use in spring and durum wheat.

GROUP 1

REPLACES: Horizon®

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat

WEEDS CONTROLLED

- | | |
|--------------------------|-------------------------------|
| • Wild oats ¹ | • Barnyard grass |
| • Volunteer tame oats | • Volunteer canary seed |
| • Green foxtail | • Persian dandel ² |
| • Yellow foxtail | |

¹ Not including group1 resistant biotypes.

² Requires 63 acre/case rate (high rate) plus 1.0% v/v VIKING Crop Oil Concentrate.

ACTIVE INGREDIENT

- Clodinafop 240 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND
ACRES TREATED

- 93 mL/acre (low rate)
- 117 mL/acre (high rate)
- **Acres treated:**
 - **Case:** 63- 80 acres.
 - **Bulk:** 800 - 960 acres
- See product label for weed specific application rates.

PACKAGE SIZE

- **Case:** 7.4 L jug VIKING Clodinafop Herbicide + 15 L jug of VIKING Crop Oil Concentrate
- **Bulk:** 89.2 L drum VIKING Clodinafop Herbicide + 180 L tote VIKING Crop Oil Concentrate

WATER VOLUME

- **Ground:** 5 - 10 US gallons/acre (20 – 40 L/acre)
- **Aerial:** 3 US gallons/acre. (12 L/acre)

SURFACTANT

- VIKING Crop Oil Concentrate at 8 L per 1,000 L of water

RAINFAST

- Minimum 30 minutes

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HOW VIKING CLODINAFOP WORKS:

Systemic herbicide that is absorbed by leaves and moves rapidly to the growing points of the plant, with weed growth stopping soon after application. Thorough coverage of susceptible weeds and good growing conditions are required for optimum control.

CROP STAGING:

- **Crop stage:**
 - 1-6 leaf prior to emergence of 4th tiller
- **Weed stage:**
 - **Wild oats, canary seed:** 1-6 leaf on main stem
 - **Barnyard grass, Persian dandel, green foxtail, yellow foxtail:** 1-5 leaf on the main stem
 - **Volunteer oats:** 3-6 leaf stage on the main stem

CROP ROTATIONS:

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- **VIKING Avesta Herbicide, VIKING Brevik Herbicide, VIKING Drammen Herbicide, VIKING Hamar Herbicide, VIKING Harstad Herbicide, VIKING Kalmar F2 Herbicide, VIKING Lidingo Herbicide, VIKING Navik Herbicide, VIKING Stavanger Herbicide, VIKING Trycka Herbicide, VIKING 2,4-D Ester 700 Herbicide, VIKING MPCA Ester 600 Herbicide, Paradigm™, Pixxaro™, Exhilarate™.**
- See product label for additional tank mix options.

GRAZING RESTRICTIONS:

- Do not graze or feed to livestock within 3 days of application.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. If using a dry broadleaf herbicide, insecticide or fungicide add the required rate and dissolve.
3. Add the required amount of liquid formulation broadleaf herbicide, insecticide, or fungicide.
4. Add the required amount of **VIKING Clodinafop Herbicide** and agitate for several minutes.
5. Add the correct amount of **VIKING Crop Oil Concentrate Adjuvant** and agitate for 1-2 minutes before adding the remainder of water.
6. If application is stopped prior to completion, resuspend spray solution prior to commencing spraying.
7. If an oil film starts to build up in the tank, drain tank and then clean with a detergent.

PERFORMANCE TIPS

Best control will occur when applied between temperatures of 15° C and 27° C in warm moist growing conditions when weeds are actively growing. Use higher water volumes with a dense crop canopy and/or large weeds. Typical symptoms (discoloration) may not be noticeable for 1-2 weeks depending on growing conditions and weed susceptibility. Weed control can be reduced or delayed under stress conditions such as drought, heat, insufficient fertility, flooding, insect or disease damage, or prolonged cool temperatures. Application under stress conditions may also cause crop damage and weed re-growth. Do not tank mix **VIKING Clodinafop Herbicide** with 2,4-D Amine or MCPA Amine as a reduced control of green foxtail and wild oats may occur.

Always read and follow all label precautions and directions.

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VIKING™ FENOXAPROP

Herbicide

Ferocious™, proven and affordable control of wild oats, green and yellow foxtail, and barnyard grass plus numerous tank mix options and a wide window of application for use in spring wheat, durum wheat and barley.

GROUP 1

REPLACES: Puma

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley (must be tank mixed)

WEEDS CONTROLLED

- Wild oats
- Green foxtail
- Yellow foxtail
- Barnyard grass

ACTIVE INGREDIENT

- Fenoxaprop-p-ethyl 120 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Application rate:** 312 mL/acre
- **Acres Treated:**
 - **Case:** 80 acres.
 - **Bulk:** 1600 acres

PACKAGE SIZE

- **Case:** 2 X 12.4 L jugs
- **Bulk:** 500 L tote

WATER VOLUME

- **Spring wheat, Durum wheat:** 5-10 US gallons/acre (20 – 40 L/acre)
- **Barley:** 10 US gallons/acre (40 L/acre)

SURFACTANT

- None required

RAINFEST

- Minimum 1 hour


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HOW VIKING FENOXAPROP WORKS:

Systemic herbicide that is absorbed by leaves and moves rapidly to the growing points of the plant, with weed growth stopping soon after application. Thorough coverage of susceptible weeds and good growing conditions are required for optimum control.

CROP STAGING:

- **Crop stage:**
Spring and Durum wheat: 1 - 6 leaf on the main stem plus 3 tillers.
Barley: 1 - 5 leaf on the main stem plus 2 tillers
- **Weed stage:** 1 - 6 leaf stage up to emergence of 3rd tiller.

CROP ROTATIONS:

- All major crops can be grown the year after application..

REGISTERED AND SUPPORTED TANK MIXES*:

- **VIKING Avesta Herbicide, VIKING Brevik Herbicide, VIKING Clopyralid Herbicide, VIKING Drammen Herbicide, VIKING Hamar Herbicide, VIKING Harstad Herbicide, VIKING Lidingo Herbicide, VIKING Navik Herbicide, VIKING Stavanger Herbicide, VIKING 2,4-D Ester 700 Herbicide, VIKING MPCA Ester 600 Herbicide, Paradigm™, Pixxaro™, Exhilarate™.**
- **See product label for additional tank mix options.**

GRAZING RESTRICTIONS:

- Treated crop may be grazed or cut for hay 25 days after application.

PREHARVEST INTERVAL:

- Mature crop may be harvested 65 days after application.

STORAGE:

- Store this product away from food or feed. Store in original container and out of reach of children, preferably in a locked storage area. Keep product from freezing; if stored for 1 year or longer, shake well before using.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add required rate of any tank mix partners.
3. Slowly add the required rate of **VIKING Fenoxaprop Herbicide**.
4. Add the required rate of any surfactant if needed.
5. Add the remainder of the water and apply.
6. Do not leave the spray mixture in the sprayer overnight. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur at temperatures between 12°C and 24°C in warm moist growing conditions when weeds are small and actively growing. Use higher water volumes with a dense crop canopy or larger weeds. Typical symptoms (discoloration) may not be noticeable for 1-2 weeks depending on growing conditions and weed susceptibility. Control of weeds may take 3-4 weeks. Weed control can be reduced or delayed or the risk of crop jury can increase if applied under stress conditions such as drought, heat, insufficient fertility, flooding, insect or disease damage, or prolonged cool temperatures. Application outside the recommended leaf stage or overlap during application will increase the risk of crop injury. Do not use **VIKING Fenoxaprop Herbicide** alone in barley as temporary crop injury can be expected. Always tank mix with a supported broadleaf tank mix partner.

VIKING™ FLUCARBAZONE

Herbicide

Ferocious™, effective, and proven control of wild oats (including group 1 resistant biotypes), and other grass weeds plus the benefits of early application and numerous tank mix options for use in spring and durum wheat

GROUP 2

REPLACES: Everest®

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat (post-emergent application only)

WEEDS CONTROLLED

- Green foxtail¹
- Volunteer tame oats
- Wild oats¹
- Green smartweed
- Redroot pigweed
- Shepherd's purse
- Stinkweed
- Volunteer canola²
- Wild mustard

¹ Including Group 1 resistant biotypes.

² Group 2 tolerant biotypes will not be controlled.

ACTIVE INGREDIENT

- Flucarbazone 70% wettable granule (WG)

APPLICATION RATE AND ACRES TREATED

- **Recommended rate:** 14.2 grams/acre
- **Acres treated:** 40 acres/bottle
- See product label for additional application rates

PACKAGE SIZE

- **Case:** 567 grams

WATER VOLUME

- 5-10 US gallons/acre (20 – 40 L/acre)

SURFACTANT

- Agral® 90 at 2.5 L per 1,000 L of water

RAINFAST

- Minimum 1 hour


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HOW VIKING FLUCARBAZONE WORKS:

Systemic herbicide that is absorbed by leaves and roots and moves rapidly to the growing points of the plant. Growth of susceptible plants stops soon after application, symptoms include discoloration (yellowing, reddening, and purpling), with complete control taking up to 2-4 weeks.

CROP STAGING

- **Crop stage:** 1–4 leaf, 2 tillers
- **Weed stage:**
 - Grass weeds:** 1–4 leaf, 2 tillers
 - Broadleaf weeds:** 2–6 leaf

CROP ROTATIONS

RE-CROPPING OPTIONS BY SOIL ZONE

Grey Wooded	Black	Dark Brown	Brown
Spring wheat	Spring wheat	Spring wheat	Spring wheat
Barley	Barley	Barley	
Canola	Canola	Canola	
Field peas*	Field peas*	Field peas*	
	Field beans	Flax	
	Flax	Durum wheat	
	Durum wheat		

* Field peas can be successfully grown the year after application of **VIKING Flucarbazone Herbicide** provided the following three criteria are met:

- Soil pH must be below 7.5.
- Organic matter content must be above 4%.
- Precipitation must be equal to or above the 10-year average (minimum 100 mm) within 60 days of application in the year of application.
- Or fields can be summerfallowed.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Ensure the spray tank, in-line strainers and nozzle screens are clean. Use in-line strainers and nozzles 50 mesh or coarser.
3. Add the required rate of **VIKING Flucarbazone Herbicide** and continue agitation until product is fully dissolved.
4. Add the required amount of broadleaf herbicide.
5. Add the required amount of surfactant, complete filling tank with balance of water, and apply product.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to resuming spraying.

Always read and follow all label precautions and directions.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Askim Herbicide, VIKING Avesta Herbicide, VIKING Bodo Herbicide, VIKING Brevik Herbicide, VIKING Drammen Herbicide, VIKING Hamar Herbicide, VIKING Harstad Herbicide, VIKING Kalmar F2 Herbicide, VIKING Lidingo Herbicide, VIKING Navik Herbicide, VIKING Stavanger Herbicide, VIKING 2,4-D Ester 700 Herbicide, VIKING MPCA Ester 600 Herbicide, Paradigm™, Pixxaro™, Exhilarate™.**
- See product label for complete list of tank mix options.

GRAZING RESTRICTIONS

- Do not graze treated fields or use green crop for feed.
- Wheat grain or straw from harvested treated fields may be fed to livestock.

PREHARVEST INTERVAL

- Mature crop may be harvested 80 days after application.

STORAGE

- Store this product away from food or feed. Store in original container and out of reach of children, preferably in a locked storage area. Product may be frozen.

PERFORMANCE TIPS

Best control will occur when applied between 12°C and 24°C in warm moist growing conditions when weeds are small. Reduced activity will occur at temperatures less than 8°C or more than 27°C. Use higher water volumes for thicker crop canopy or heavier weed pressure. Typical symptoms (discoloration) of dying weeds may not be noticeable for several days to 2 weeks after application, depending upon growing conditions. Control of weeds may take up to 3-4 weeks. Frost 3 days before or after application may reduce weed control and crop tolerance. Weed control may be reduced during stress conditions or if weed populations are heavy or too far advanced. Crops 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 also may be reduced by these same conditions.

VIKING™ PINOXADEN 50

Herbicide

Ferocious™, effective, high-performance control of wild oats and grass weeds plus a long list of tank mix options, a wide window of application, no re-cropping restrictions, and excellent crop safety for use in spring wheat and barley.

GROUP 1

REPLACES: Axial®

REGISTERED CROPS AND USES

- Spring wheat
- Barley

WEEDS CONTROLLED

- Wild Oats,
- Green Foxtail
- Yellow Foxtail
- Barnyard Grass
- Volunteer Oats
- Volunteer Canary Seed
- Proso Millet

ACTIVE INGREDIENT

- Pinoxaden 50 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Application rate:** 500 mL/acre
- **Acres Treated:**
 - **Case:** 40 acres/case
 - **Bulk:** 240 acres, 960 acres or 2000 acres

PACKAGE SIZE

- **Case:** 2 x 10 L
- **Bulk:** 120 L drum, 480 L tote or 1000 L tote

WATER VOLUME

- **Ground:** 5-10 US gallons/acre (20-40 L/acre)
- **Aerial:** 3 US gallons/acre. (12 L/acre)

SURFACTANT

- Not required

RAINFAST

- 1 hour





HOW VIKING PINOXADEN 50 WORKS:

Systemic herbicide that is absorbed by leaves and moves rapidly to the growing points of the plant, with weed growth stopping soon after application. Thorough coverage of susceptible weeds and good growing conditions are required for optimum control.

CROP STAGING

- **Crop stage:**
1 leaf to flag leaf
- **Weed stage:**
1-6 leaf prior to the 4th tiller

CROP ROTATIONS

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Askim Herbicide, VIKING Bodo Herbicide, VIKING Brevik Herbicide, VIKING Drammen Herbicide, VIKING Hamar Herbicide, VIKING Larvik Herbicide, VIKING Lidingo Herbicide, VIKING Navik Herbicide, VIKING Stavanger Herbicide, VIKING Trycka Herbicide, VIKING MPCA Ester 600 Herbicide, Exhilarate™, Extinguish™, Ondeck™, Pixxaro™, Prominex™.**
- See product label for additional tank mix options.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Do not graze or feed to livestock within 7 days of application.

PREHARVEST INTERVAL

- **Grain and Straw:** Mature crop may be harvested 60 days after application.
- **Hay:** Mature crop may be harvested 30 days after application.

STORAGE

- Store this product away from food or feed. Keep in original container, tightly closed, during storage. Store in a cool, dry, well-ventilated area away from feed and foodstuffs, and out of the reach of children and animals. Keep away from fire or open flame, or other sources of heat. If frozen, allow to thaw and agitate thoroughly prior to use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. If using a dry broadleaf herbicide, insecticide or fungicide add the required rate and agitate until dissolved.
3. Add the required amount of liquid formulation broadleaf herbicide, insecticide, or fungicide.
4. Add the required amount of **VIKING Pinoxaden Herbicide** and agitate for several minutes.
5. If application is stopped prior to completion, re-suspend spray solution prior to commencing spraying.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when applied between temperatures of 15° C and 27° C in warm moist growing conditions when weeds are actively growing. Use higher water volumes with a dense crop canopy and/or large weeds. Actively growing weeds will stop growing within 48 hours of treatment. Typical symptoms (yellow leaves and growing points) may not be noticeable for 1-3 weeks depending on growing conditions. Weed control can be reduced or delayed under stress conditions such as drought, heat, insufficient fertility, flooding, insect or disease damage, or prolonged cool temperatures. Application under stress conditions may also cause crop damage and weed re-growth. Do not tank mix **VIKING Pinoxaden Herbicide** with 2,4-D amine or ester as reduced weed control will occur.

GRASS CONTROL HERBICIDE

VIKING™ QUIZALOFOFOP

Herbicide

Ferocious™, powerful control of wild oats plus control or suppression of 10 additional grass weeds, including improved control of foxtail barley, Japanese brome, and quackgrass (spring seedlings), plus a wide window of application and numerous tank mix options for use in many different crops.

GROUP 1

REPLACES: Assure®

REGISTERED CROPS AND USES

- | | |
|-----------------------|--|
| • Alsike clover | • Lupins |
| • Camelina | • Mustards (oriental, brown) |
| • Canola | • Carinata |
| • Chickpeas | • Peas |
| • Common dry beans | • Red clover |
| • Crambe | • Seedling legumes (seed production) |
| • Creeping red fescue | • Snap beans |
| • Cucurbit vegetables | • Soybeans |
| • Fababeans | • Sugar beets |
| • Flax | • See product label for complete list of registered crops. |
| • Hemp | |
| • Lentils | |

WEEDS CONTROLLED

200 mL/acre (107 acres/case) rate:

Barnyard grass	2 leaf to early tillering
Green foxtail	2 leaf to early tillering
Fall panicum	2 leaf to early tillering
Foxtail barley ¹	3 – 4 leaf + 3 tillers
Japanese brome ¹	2-5 leaf stage
Old witchgrass	2 leaf to early tillering
Proso millet	2 leaf to early tillering
Quackgrass ¹	suppression, 2-6 leaf
Wild Oats	1-5 leaf, up to 2 tillers
Volunteer cereals	2 leaf to early tillering
Volunteer corn	2 – 6 leaf
Yellow foxtail	2 leaf to early tillering

¹ Spring seedlings only. Quiz will not control established plants or plants beyond the 6-leaf stage.

ACTIVE INGREDIENT

- Quizalofop: 240 g/L emulsifiable concentrate

APPLICATION RATE AND ACRES TREATED

- **Rate:** 150-300 mL/acre (200 mL/acre is the most common use rate)
- **Acres treated:** 53-107 acres/case (80 acres/case is the most common use rate)
- See product label for weed-specific application rates.

PACKAGE SIZE

- **Case:** 2 x 8 L jugs
- **Bulk:** 500 L tote

WATER VOLUME

- 10 US gallons/acre (40 L/acre)

SURFACTANT

- **VIKING PHC Adjuvant** or Merge® at 5 – 10 L per 1,000 L spray solution or Sure-Mix™ at 5 L per 1,000 L spray solution

RAINFAST

- Minimum 1 hour


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HOW VIKING QUIZALOFOP WORKS:

A non-selective, systemic herbicide that moves from the foliage into the growing points of leaves, shoots and roots and kills the entire plant. Thorough coverage of susceptible weeds and good growing conditions are required for optimum control.

CROP STAGING

- **Crop stage:** No crop staging restrictions.
- **Weed stage:** 2 leaf to early tiller unless otherwise indicated

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **Glyphosate tolerant canola:** VIKING 540 Glyphosate Herbicide
- **LibertyLink® canola:** VIKING Glufosinate 150 Herbicide
- **Field peas:** VIKING Bentazon Herbicide VIKING Imazamox Herbicide, VIKING Imazethapyr Herbicide, VIKING Skien Herbicide
- **Glyphosate tolerant soybeans:** VIKING 540 Glyphosate Herbicide
- **Pinto, Pink, Great northern and Small red beans:** VIKING Bentazon Herbicide
- **Fescue:** Ally®
- **Soybeans:** Pinnacle®
- Please consult the product label for additional tank mixes, application rates and use guidelines.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Do not graze treated fields or harvest for forage or hay.

PREHARVEST INTERVAL

CROP	PHI	CROP	PHI	CROP	PHI
Chickpeas	85	Lentils	65	Seedling alfalfa	30
Canola	64	Field peas	65	Soybeans	80
Dry beans	30	Flax	82		

STORAGE

- Store this product away from food or feed. Not for use or storage in or around the home. Keep container closed. Do not freeze.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. If required, add dry formulation tank mix partners first,
3. If required, add liquid formulation tank mix partners.
4. Add correct amount of **VIKING Quizalofop Herbicide**, followed by correct amount of surfactant.
5. Complete filling of spray tank, apply product, and continue application until the tank is empty.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when applied between 12°C and 24°C in warm moist growing conditions when weeds are small and actively growing. Use the higher rate of surfactant when wild oats or quackgrass are the main target weeds, or under stressful growing conditions. Typical symptoms (discoloration) of dying weeds may not be visible for several days to 1-2 weeks after application, depending on the grass species and growing conditions. Control of weeds may take 3-4 weeks. Control will be reduced if weeds are stressed due to drought, extreme cold or hot temperatures, or if there is improper mixing, application timing, or poor coverage.

VIKING Quizalofop Herbicide should not be mixed with MCPA, Curtail™ M, Buctril® M, **VIKING MCPA Herbicide**, **VIKING Drammen Herbicide**, or **VIKING Hamar Herbicide** in flax due to antagonism with products that contain MPCA.

VIKING™ 2,4-D ESTER 700

Herbicide

Ferocious™, cost-effective and proven control or suppression of redroot pigweed, wild mustard, lamb's quarters, and shepherd's purse plus 46 broadleaf weeds, a wide window of application, and excellent crop safety for use in spring and winter wheat.

GROUP 4

REPLACES: 2,4-D Ester 700

REGISTERED CROPS AND USES

- Spring wheat
- Winter wheat

WEEDS CONTROLLED

at 200-320 mL/ac*

- | | |
|---|---|
| <ul style="list-style-type: none"> • Annual sunflower • Bluebur • Burdock • Cocklebur • Field horsetail¹ • Flixweed • Goats beard • Hoary cress¹ • Kochia • Lamb's-quarters • Mustard (except dog and green tansy) | <ul style="list-style-type: none"> • Plantain • Prickly lettuce • Ragweeds • Russian knapweed • Russian thistle • Shepherd's purse • Stinkweed • Sweet clover • Setch • Wild radish |
|---|---|

at 360-520 mL/ac[†]

- | | |
|---|--|
| <ul style="list-style-type: none"> • Biennial wormwood • Blue lettuce¹ • Canada thistle¹ • Docks • Dandelion • Dog mustard • Field bindweed¹ • Field peppergrass • Gumweed • Hairy galinsoga • Hedge bindweed | <ul style="list-style-type: none"> • Lady's thumb • Leafy spurge¹ • Oak leaf goosefoot • Perennial sow-thistle¹ • Redroot pigweed • Russian thistle • Smartweed • Tansy • Tartary buckwheat • Tumbleweed • Wild buckwheat² |
|---|--|

* Higher rates MUST be used for larger weeds, dry or cool weather, or heavy weed infestations.

¹ Top growth control only² Better control will result from 2 treatments applied one week apart at 200 mL/acre[†] The higher rates may cause deformities and delayed maturity which will be offset by a higher relative yield from a less weedy crop.

ACTIVE INGREDIENT

- 2,4-D Ester 660 g/L emulsifiable concentrate

APPLICATION RATE AND ACRES TREATED

- Application rate and acres treated will vary by weed species and weed size.
- See product label or Weeds Controlled section for full list of weeds and recommended use rates.

PACKAGE SIZE

- **Case:** 2 X 10 L jugs
- **Tote:** 510 L

WATER VOLUME

- 5-20 US gallons/acre (20 – 80 L/acre)
- Aerial: minimum 3 US gallons/acre
- Application rate is equipment dependent.

SURFACTANT

- Not required.

RAINFAST

- Minimum 2 hours
- Avoid application when heavy rain is forecast.





HOW VIKING 2,4-D ESTER 700 WORKS:

Product is absorbed through roots and leaves and translocated in the plant through phloem and xylem and the components work within the plant to control exposed and underground plant tissue. The herbicide mimics naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Affected plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Crop stage:** 4 leaf to early flag leaf
- **Weed stage:** 2-4 leaf. Larger weeds require higher application rates

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- Many broadleaf and grass herbicide products support tank mixes with **Viking 2,4-D Ester 700 Herbicide**. See the tank mix partner label for supported crops and rates.

GRAZING RESTRICTIONS

- Graze lactating dairy animals 7 days after application.
- Withdraw meat animals from treated fields at least 3 days prior to slaughter .

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

PREHARVEST INTERVAL

- Harvest forage or cut hay 30 days after application.

STORAGE

- Store this product away from food or feed. This product must be stored away from fertilizers, seeds, insecticides, fungicides or other herbicides intended for use on 2,4-D sensitive crops

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. If required, add the correct amount of any dry formulation products.
3. If required, add the correct amount of grassy weed tank mix partner.
4. Add the required amount of **VIKING 2,4-D Ester 700 Herbicide**.
5. Add any required surfactant.
6. Complete filling of sprayer and apply.
7. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when product is applied between 12° C and 24° C in warm, moist growing conditions. Good coverage is essential. Use higher water volumes in heavy canopy or weed pressure. High water volumes can reduce the risk of crop injury. Typical symptoms of dying weeds will be visible within several days after application depending on growing conditions. Control of weeds may take up to 2-3 weeks. Optimum weed control will occur when applied at the 2-4 leaf stage of the weeds. Application to crops that are stressed by severe weather conditions, frost, low fertility, water-logged soil (soil at or near field capacity), disease or insect damage may result in crop injury. Drought, disease or insect damage following application may also result in crop injury. Weed control may be reduced during stress conditions, e.g. drought, heat or cold stress, if weeds have initiated flowering, or if heavy infestations exist.

VIKING™ MCPA ESTER 600

Herbicide

Ferocious™, cost-effective, and proven control or suppression of lamb's-quarters, redroot pigweed, stinkweed, and tartary buckwheat plus 39 additional broadleaf weeds, a wide window of application and excellent crop safety for use in many different crops.

GROUP 4

REPLACES: other MCPA Ester 600 herbicides

REGISTERED CROPS AND USES

- Wheat
- Barley
- Oats
- Spring and fall rye
- Flax
- Established grasses
- Alfalfa
- Alsike
- Red clover

WEEDS CONTROLLED

at 240-360 mL/ac†

- Burdock (before the 4 leaf stage)
- Cocklebur
- Common plantain
- Common ragweed
- False ragweed
- Flixweed*
- Giant ragweed
- Lamb's-quarters
- Mustards (except Dog and Tansy mustard)
- Prickly lettuce
- Russian pigweed**
- Shepherd's purse**
- Stinkweed
- Vetch
- Wild radish
- Wild (annual) sunflower
- See label for a complete list of registered crops and uses.

* Flixweed susceptible only at seedling stage. Use higher rate for fall germinated seedlings.

** Use higher rate only on these species.

at 420-610 mL/ac†

- Annual sow-thistle
- Biennial wormwood
- Blue lettuce*
- Bluebur
- Canada thistle*
- Corn spurry*
- Curled dock
- Dandelion
- Dog mustard
- Field bindweed*
- Field Horsetail*
- Field peppergrass
- Goat's-beard
- Gumweed
- Hairy galinsoga
- Hedge bindweed*
- Hemp-nettle (before 4 leaf stage)
- Hoary cress*
- Kochia
- Lady's-thumb*
- Leafy spurge*
- Oak-leaved goosefoot
- Perennial sow-thistle*
- Purslane
- Redroot pigweed
- Russian knapweed*
- Russian thistle
- Smartweed*
- Sweet clover (seedling)
- Tansy mustard
- Tartary Buckwheat

* Top growth control only.

† Use higher rates for larger weeds, dry or cool weather, or heavy weed infestations.

ACTIVE INGREDIENT

- MCPA Ester 600 g ae/L emulsifiable concentrate

APPLICATION RATE AND ACRES TREATED

- Application rate and acres treated will vary by weed species and size
- See product label or Weeds Controlled section for full list of weeds and recommended use rates.

PACKAGE SIZE

- **Case:** 2 X 10 L jugs
- **Bulk:** 115 L drum, 500 L tote

WATER VOLUME

- **Ground:** 10-25 US gallons/acre (40 – 100 L/acre)
- **Aerial:** Minimum 3 US gallons/ac (12 L/acre)
- Higher water volumes can reduce the risk of crop injury, particularly in oats and flax.

SURFACTANT

- None required.

RAINFEST

- Minimum 2 hours.
- Avoid application when heavy rain is forecast.


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HOW VIKING MCPA ESTER 600 WORKS:

Product is absorbed through roots and leaves and translocated in the plant through phloem and xylem and the components work within the plant to control exposed and underground plant tissue. The herbicide mimics naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Affected plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Wheat, Barley, Rye:** 3 leaf to early flag leaf
- **Oats:** 1 leaf to early flag leaf
- **Fall rye and winter wheat:** Spring application only between full tillering and the shot blade stage
- **Flax:** 5 cm in height to early bud stage
- **Established grasses, alfalfa, alsike and red clover:** very early in the spring, before the growth of perennial forages has begun.

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- Many broadleaf and grass herbicide products support tank mixes with **Viking MCPA Ester 600 Herbicide**. See the tank mix partner label for supported crops and rates.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Graze fields 7 days after application.
- Dairy animals may graze fields 7 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.

PREHARVEST INTERVAL

- Harvest forage or cut hay 7 days after application.

STORAGE

- Store this product away from food or feed. Keep in original container during storage. May be stored at any temperature.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. If required, add the correct amount of any dry formulation products.
3. If required, add the correct amount of grassy weed tank mix partner.
4. Add the required amount of **VIKING MCPA Ester 600 Herbicide**.
5. Add any required surfactant.
6. Complete filling of sprayer and apply.
7. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best results will occur with temperatures between 12°C and 24°C in warm moist conditions when weeds are smaller and actively growing. Use higher water volumes with heavier weed pressure, larger weeds and thicker crop canopy. Typical symptoms (twisting of the stems) of dying weeds may not be visible for several days to 2 weeks after application, depending on growing conditions. Control of weeds may take 3-4 weeks. Degree of control and duration of effect are dependent on weed sensitivity, weed size, crop competition, growing condition at and following treatment, and spray coverage. When weeds are stressed due to drought, cold stress, flooding or prolonged hot or cool temperatures (less than 8°C or more than 27°C), control can be reduced or delayed since weeds are not actively growing. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as unsatisfactory results are likely to occur.

VIKING™ ASKIM

Herbicide

Ferocious™, powerful, superior performance with the highest registered rates of florasulam and fluroxypyr for broad-spectrum control of cleavers (including group 2 resistant biotypes), kochia (including group 2 and 9 resistant biotypes), chickweed, wild buckwheat, plus control or suppression of 34+ broadleaf weeds with addition of MCPA Ester 600, excellent crop safety and a wide window of application for use in in spring wheat, durum wheat, and barley.

GROUP 2 & 4

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley

WEEDS CONTROLLED

(with the addition of 250 mL/acre of MCPA Ester 600)

- | | |
|-----------------------------------|----------------------------------|
| • Annual sunflower ¹ | • Redroot pigweed ³ |
| • Ball mustard | • Round-leaved mallow (1-6 leaf) |
| • Burdock ¹ | • Russian pigweed ¹ |
| • Chickweed | • Shepherd's-purse |
| • Cleavers (1-4 whorl) | • Smartweed |
| • Cocklebur | • Stinkweed |
| • Common ragweed | • Vetch |
| • Cow cockle | • Volunteer canola ⁴ |
| • Flixweed (spring rosettes only) | • Volunteer flax (1-12 cm) |
| • Hemp-nettle ³ | • Wild buckwheat |
| • Kochia (2-8 leaf) ² | • Wild mustard |
| • Lamb's-quarters | • Wild radish |
| • Prickly lettuce ¹ | |

WEEDS SUPRESSED

(with the addition of 250 mL/acre of MCPA Ester 600)

- | | |
|--|--|
| • Annual sow thistle | • Perennial sow thistle |
| • Canada thistle | • Plantain (top growth only) |
| • Dandelion (seedlings and overwintered rosettes <15 cm) | • Stork's bill (1-8 leaf) ³ |
| • Narrow-leaved hawk's-beard | |

¹ Up to 4 leaf

² Including Group 2 resistant biotypes.

³ Optimum control with an additional 30 mL/ac MCPA Ester 600

⁴ Including all HT biotypes.

ACTIVE INGREDIENTS

- Florasulam 50 g/L suspension concentrate (SC)
- Fluroxypyr 180 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Rates:** VIKING Florasulam Herbicide 40 mL/acre + VIKING Fluroxypyr Herbicide 320 mL/acre
- **Acres Treated:**
 - **Case:** 80 acres
 - **Bulk:** 720 acres

PACKAGE SIZE:

- **Case:** 1 X 3.2 L jug VIKING Florasulam Herbicide + 2 X 12.8 L jug VIKING Fluroxypyr Herbicide
- **Bulk:** (9 x 3.2 L jug) VIKING Florasulam Herbicide + 230 L tote VIKING Fluroxypyr Herbicide

WATER VOLUME

- 10 US gallons/acre (40 L/acre)

SURFACTANT

- Not required

RAINFAST

- 4 hours


VIKING
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HOW VIKING ASKIM WORKS:

Contains two complimentary active ingredients (group 2 and 4) which are absorbed through roots and leaves and translocated in the plant through phloem and xylem. The two components work within the plant to control exposed and underground plant tissue. The herbicide activates mimic naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Susceptible plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Crop stage:** 2 leaf - just before flag leaf
- **Weed stage:** 2 - 4 leaf

CROP ROTATIONS:

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- **VIKING Pinoxaden 50 Herbicide, VIKING Flucarbazone Herbicide, Simplicity™, Traxos®**

GRAZING RESTRICTIONS:

- Livestock can be grazed on treated areas 7 days after application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.

PREHARVEST INTERVAL:

- Allow 7 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application.

STORAGE:

- Store this product away from food or feed. Do not freeze. If product is frozen, bring to room temperature and agitate before use.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required amount of **VIKING Florasulam Herbicide**
3. If tank mixing, add the required amount of grassy weed control tank mix partner.
4. Add the required amount of **VIKING Fluroxypyr Herbicide**.
5. If desired add the required amount of **VIKING MCPA Ester 600 Herbicide**.
6. Add surfactant if required, then complete filling of spray tank, and apply.
7. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur with temperatures between 12°C and 24°C in warm moist conditions when weeds are small and actively growing. Typical symptoms (twisting of the stems, inhibition of growing point, discoloration) of dying weeds may not be visible for up to 2 weeks after application, depending on growing conditions. Control of weeds may take 3-4 weeks. When weeds are stressed due to drought, flooding or prolonged hot or cool temperatures (less than 8 °C or more than 27° C), control can be reduced or delayed since weeds are not actively growing. Weed escapes may occur under prolonged stress conditions or low fertility. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as unsatisfactory control can result.

VIKING™ AVESTA

Herbicide

Ferocious™, proven, and powerful control of kochia (including group 2 & 9 resistant biotypes), Russian thistle, narrow-leaved hawk's-beard cleavers, 43 tough-to-kill broadleaf weeds plus 3 modes of action, a wide window of application, excellent crop safety and multiple tank mix options for use in spring and durum wheat.

GROUP 2 & 4

REPLACES: Retain®

REGISTERED CROPS AND USES

- Durum wheat
- Spring Wheat

WEEDS CONTROLLED

- | | |
|-----------------------------------|-------------------------------|
| • Annual sow-thistle | • Narrow-leaved hawk's-beard |
| • Annual smartweed | • Plantain |
| • Ball mustard | • Prickly lettuce |
| • Bluebur ¹ | • Redroot pigweed |
| • Burdock ¹ | • Russian pigweed |
| • Chickweed ² | • Russian thistle |
| • Cleavers | • Shepherd's purse |
| • Cocklebur | • Stinging nettle |
| • Common ragweed | • Stinkweed |
| • Common groundsel | • Sweet clover (seedling) |
| • Corn spurry | • Tartary buckwheat |
| • Cow cockle | • Thyme-leaved spurge |
| • Daisy fleabane | • Volunteer canola |
| • False flax | • Volunteer flax (1-12cm) |
| • False ragweed | • Volunteer sunflower |
| • Flixweed | • Wild buckwheat ⁴ |
| • Goat's-beard | • Wild mustard |
| • Giant ragweed | • Wild radish |
| • Hemp-nettle | • Wild sunflower |
| • Kochia ³ | |
| • Lamb's quarters | |
| • Mustards (except dog and tansy) | |

WEEDS SUPRESSED

- | | |
|---|----------------------------|
| • Canada thistle ⁶ | • Sow thistle ⁶ |
| • Round-leaved mallow (2-6 leaf) ⁷ | • Stork's-bill (2-6 leaf) |
| • Scentless chamomile | • Toadflax ⁸ |

ACTIVE INGREDIENTS

- Fluroxypyr 180 g/L emulsifiable concentrate (EC)
- Thifensulfuron methyl 50% + Tribenuron methyl 25% wettable granule (WG)
- 2,4-D Ester 660 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Rates:** 240 mL/acre **VIKING Fluroxypyr Herbicide** + 245 mL/acre of **VIKING 2,4-D Ester 700 Herbicide** + 8 grams/acre **VIKING Navik Herbicide**
- **Case:** 40 acres,
- **Bulk:** 960 acres.

PACKAGE SIZE

- **Case:** 1 X 9.6 L jug **VIKING Fluroxypyr Herbicide** + 1 x 9.8 L jug **VIKING 2,4-D Ester 700 Herbicide** + 1 X 320 g **VIKING Navik Herbicide**
- **Bulk:** 230 L tote **VIKING Fluroxypyr Herbicide** + 240 L tote **VIKING 2,4-D Ester 700 Herbicide** + (24 X 320) **VIKING Navik Herbicide**.

WATER VOLUME

- 5 - 10 US gallons/acre (20 - 40 L/acre)

SURFACTANT

- Not required if mixed with a wild oat herbicide.
- If used alone, Agral® 90 or Ag-Surf® at 2 L per 1,000 L water.

RAINFAST

- Minimum 4 hours

¹ Up to 4 leaf stage

² Apply when chickweed is small (1-6 leaf) and actively growing, but before canopy prevents thorough coverage. Chickweed emerging after application will not be controlled.

³ Including Group 2 resistant biotypes

⁴ Apply to actively growing wild buckwheat at the cotyledon to 3 leaf stage. Large plants may regrow after treatment.

⁵ Top growth control only. For best results, apply before bud stage when thistles are no larger than 15 cm tall.

⁶ Apply to actively growing mallow, plants will be stunted only.

⁷ Apply when plants are less than 15 cm in height. A control program includes chemical application and frequent tillage.


VIKING

vikingcropproduction.com





HOW VIKING AVESTA WORKS:

Absorbed through leaves and roots and translocated in the plant through phloem and xylem, the components work within the plant to control exposed and underground plant tissue. With 2 modes of the action, product works by both disrupting the ALS enzyme and mimicking naturally occurring plant hormones, with weeds controlled by disrupting normal plant growth patterns. Affected plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Crop stage:** 4 leaf – flag leaf
- **Weed stage:** less than 10 cm in height or diameter.

CROP ROTATIONS

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Clodinafop Herbicide, VIKING Fenoxaprop Herbicide[†], VIKING Flucarbazone Herbicide, Simplicity[™], Traxos[®]**

[†] Spring or durum wheat only

* Do not tank mix with Simplicity if adding additional 2,4-D Ester

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Livestock may be grazed on treated areas 7 days after application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.

PREHARVEST INTERVAL

- Allow 7 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application.

STORAGE

- Store this product away from food or feed. Do not freeze. If product is frozen, bring to room temperature and agitate before use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required amount of **VIKING Navik Herbicide** and agitate until dissolved.
3. If tank mixing, add the required amount of grassy weed control tank mix partner.
4. Add the required amount of **VIKING Fluroxypyr Herbicide.**
5. Add the required amount of **VIKING 2,4-D Ester 700 Herbicide.**
6. Add surfactant if required, then complete filling of spray tank, and apply.
7. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Use 50 mesh or larger screens in spraying equipment. Best control will occur when applied between 12°C and 24°C in warm moist growing conditions when weeds are small. Ensure thorough spray coverage of target weeds and use higher water volumes with dense crop canopy and/or large weeds. Typical symptoms (discoloration) of dying weeds may not be noticeable for 1 to 3 weeks, with control of weeds taking 3-4 weeks after application depending upon growing conditions. Degree of control and duration of effect are dependent on weed sensitivity, weed size, crop competition, growing conditions at and following treatment, and spray coverage. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and regrowth may occur. Application to crops that are stressed by severe weather conditions, frost, low fertility, water-logged soil (soil at or near field capacity), disease or insect damage may result in crop injury. Drought, disease, or insect damage following application may also result in crop injury. Product will degrade if left in the sprayer for more than 24 hours.

VIKING™ BENTAZON

Herbicide

Ferocious™, safe and effective control of lamb's-quarters, stinkweed and volunteer canola plus control or suppression of 26 additional broadleaf weeds in peas, beans, soybeans, an alternative mode of action and no -recropping restrictions for use in peas, beans, soybeans, fababeans and many other crops.

GROUP 6

REPLACES: Basagran®

REGISTERED CROPS AND USES

- Dry beans
- Field peas
- Fababeans
- Soybeans
- See product label for complete list of registered crops.

WEEDS CONTROLLED

- Bird rape
- Buttercup
- Canada thistle²
- Cleavers (1-3 whorl)
- Cocklebur
- Common chickweed
- Common groundsel³
- Common ragweed³
- Corn spurry
- Field bindweed^{2,4,5}
- Flower-of-an-hour
- Giant ragweed
- Hairy galinsoga
- Hairy nightshade
- Jimsonweed
- Lady's-thumb
- Lamb's-quarters³
- Low cudweed
- Purslane
- Redroot pigweed^{3,4}
- Russian thistle⁴
- Shepherd's purse
- Stinkweed
- Stork's-bill
- Velvetleaf⁶
- Volunteer canola⁷
- Wild mustard
- Wild radish
- Yellow Nutsedge²

¹ See label for weed specific application rates and timing.

² For perennial weeds, repeat application of VIKING Bentazon Herbicide 7 to 15 days after first if needed.

³ Includes triazine-resistant biotypes.

⁴ Suppression

⁵ Treat before it is dark green and has begun to trail.

⁶ Will defoliate 4 leaf and larger but regrowth may occur.

⁷ Only provides control in field peas up to 4 leaf at 404 mL/acre.

NOTE: Weed control with VIKING Bentazon Herbicide is crop, weed and rate specific, and different additives or surfactants will be required depending on the crop and tank mix partner. Please read the product label for specific recommendations.

ACTIVE INGREDIENT

- Bentazon 480 g/L solution

APPLICATION RATE AND ACRES TREATED

- **Low rate:** 710 mL/acre
- **High rate:** 910 mL/acre
- **Acres Treated:**
- **Case:** 32-40 acres
- Weed control is rate dependent. See product label for weed specific application rates.

PACKAGE SIZE

- **Case:** 2 x 14.5L jugs
- **Bulk:** 348 L tote

WATER VOLUME

- 10-40 US gallons/acre. See label for required water volume by crop.
- Surfactant
- ASSSIST OR XA Oil Concentrate at 0.4 – 0.8 L/acre
- Soybeans require UAN – see label for information.
- Dry beans require AMS – see label for information.
- See label for complete list of adjuvants and rates by crop.

RAINFAST

- Minimum 6 hours





HOW VIKING BENTAZON WORKS:

Contact herbicide that interferes with photosynthesis. Uptake into the plant occurs primarily through the leaves. Thorough coverage of the leaves is essential for consistent weed control. Best results will be achieved when product is applied between 12°C C and 24°C in warm moist growing conditions when weeds are actively growing.

CROP STAGING

- **Crop stage:**
- **Dry beans:** after the first trifoliate
- **Fababean:** at least 10 cm tall or after 2-3 leaf stage
- **Peas:** 3 node to flowering
- **Soybeans:** all stages
- See product label for complete list of application timing by crop.

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Quisalofof Herbicide** (Pinto, Pink Great Northern and Small red Beans in western Canada only), Pinnacle® (soybeans only), Reflex® (dry beans only)

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Do not grazed treated fields as there is no data to support this use.

PREHARVEST INTERVAL

- Do not cut treated forage for silage or hay as there is no data to support this use.

STORAGE

- Store this product away from food or feed. Do not ship or store near food, feed, seed and fertilizers. Freezing will not harm product – if frozen warm to room temperature and shake well before using.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. If required add correct amount of nitrogen source. (soybeans only).
3. If required add the correct amount of Pinnacle¹ (soybeans only) or Reflex (dry common beans only).
4. If required add the correct amount of other tank mix partners.
5. Add the required amount of **VIKING Bentazon Herbicide**.
6. Add the required amount of surfactant.
7. Add the remainder of water and apply.

¹ On repeat tank loads, prepare a Pinnacle/water slurry in a separate container with clean water before adding to spray tank.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when product is applied between 12°C and 24°C in warm moist growing conditions when weeds are actively growing. Application when temperatures are below 5° or above 29° C will reduce optimum herbicide performance. Thorough coverage is critical for performance - use a minimum of 10 gallons/acre of water. Poor results can be expected if weeds are past the 4 leaf stage, spray coverage is poor, or a lower than recommended rate is used. Drought, crop stress, and cold, hot or extremely variable temperatures will also negatively affect performance. Do not apply **VIKING Bentazon Herbicide** to crops that have been subjected to stress from conditions such as hail damage, flooding, drought, hot, humid weather, widely fluctuating temperature conditions, prolonged cold conditions or injury from prior herbicide applications as poor results and/or crop damage may result. Occasionally transient crop yellowing, speckling or bronzing may be observed after application, but this is temporary and will be outgrown by the crop.

VIKING™ BODO

Herbicide

Ferocious™, powerful control of cleavers (including group 2 resistant biotypes) kochia (including group 2 & 9 resistant biotypes), hemp-nettle, smartweed, and volunteer canola (including all HT varieties) plus 2 modes of action, a wide window of application, excellent crop safety, and multiple tank mix options for use in spring wheat, durum wheat, barley and oats.

GROUP 2 & 4

REPLACES: Steel®

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley
- Oats

WEEDS CONTROLLED

(with the addition of 250 mL/acre of MPCA Ester):

- Annual Sunflower
- Burdock
- Chickweed
- Cleavers¹
- Cocklebur
- Common plantain
- Flixweed (seedling stage only)
- Hemp-nettle
- Kochia²
- Lamb's-quarters
- Prickly lettuce
- False Ragweed
- Giant Ragweed
- Redroot Pigweed
- Russian Pigweed³
- Shepherd's-purse³
- Stinkweed
- Vetch
- Volunteer flax
- Wild buckwheat
- Mustards (except dog and tansy)
- Wild radish

¹ Including group 2 resistant biotypes.

² Including group 2 & 9 resistant biotypes.

³ requires additional 140 mL/acre MPCA Ester 600.

ACTIVE INGREDIENT

- Florasulam 2.5 g/L + fluroxypyr 100 g/L suspension (SC)

APPLICATION RATE AND ACRES TREATED

- **Rates:** 400 mL/acre
- **Acres Treated:**
 - **Case:** 40 acres
 - **Bulk:** 960 acres

PACKAGE SIZE

- **Case:** 2 x 8 L jugs
- **Bulk:** 384 L tote

WATER VOLUME

- 10 US gallons/acre (40 L/acre)

SURFACTANT

- Not required

RAINFAST

- Minimum 4 hours





HOW VIKING BODO WORKS:

Absorbed through roots and leaves and translocated in the plant through phloem and xylem, the components work within the plant to control exposed and underground plant tissue. The herbicide mimics naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Susceptible plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Crop stage:** 2 leaf - just before flag leaf
- **Weed stage:** 2-4 leaf stage

CROP ROTATIONS

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Flucarbazone Herbicide, VIKING Pinoxaden 50 Herbicide**, Simplicity™, Traxos®, Varro®

GRAZING RESTRICTIONS

- Livestock can be grazed on treated areas 7 days after application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.

PREHARVEST INTERVAL

- Allow 7 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application.

STORAGE

- Store this product away from food or feed. Do not freeze. If product is frozen, bring to room temperature and agitate before use.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. If tank mixing, add the required amount of grassy weed control tank mix partner.
3. Add the required amount of **VIKING Bodo Herbicide**.
4. If desired add the required amount of **VIKING MCPA Ester 600 Herbicide**.
5. Add surfactant if required, then complete filling of spray tank, and apply.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur with temperatures between 12°C and 24°C in warm moist conditions when weeds are small and actively growing. Typical symptoms (twisting of the stems) of dying weeds may not be visible for up to 2 weeks after application, depending on growing conditions. Control of weeds may take 3-4 weeks. When weeds are stressed due to drought, flooding or prolonged hot or cool temperatures (less than 8°C or more than 27°C), control can be reduced or delayed since weeds are not actively growing. Weed escapes may occur under prolonged stress conditions or low fertility. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as unsatisfactory control can result.

VIKING™ BREVIK

Herbicide

Ferocious™ proven and effective weed control with a higher rate of fluroxypyr for improved control of cleavers (including group 2 resistant biotypes), kochia (including group 2 & 9 resistant biotypes), hemp-nettle, wild buckwheat and control or suppression of 24 additional tough-to-kill broadleaf weeds plus two modes of action, outstanding crop safety, a wide window of application and numerous tank mix options for use in spring wheat, durum wheat and barley.

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley

WEEDS CONTROLLED

- Ball mustard
- Chickweed¹
- Cleavers²
- Common groundsel
- Corn spurry
- Cow cockle
- Flixweed
- Green smartweed
- Hemp-nettle
- Kochia³
- Lady's-thumb
- Lamb's quarters
- Narrow-leaved hawk's-beard
- Redroot pigweed
- Russian thistle
- Shepherd's purse
- Stinkweed
- Tartary buckwheat
- Volunteer canola⁴
- Volunteer sunflower
- Wild buckwheat⁵
- Wild mustard

WEEDS SUPRESSED

- Canada thistle⁶
- Round-leaved mallow⁷
- Scentless chamomile
- Sow thistle⁶
- Stork's-bill
- Toadflax⁸

¹ Emerged plants only. Apply when chickweed is small and actively growing and before canopy close.

² Including group 2 resistant biotypes.

³ Including group 2 & 9 resistant biotypes.

⁴ Not including Clearfield tolerant varieties.

⁵ Apply to actively growing wild buckwheat in the cotyledon to 3 leaf stage. Large plants may regrow after treatment.

⁶ Apply before the bud stage when thistles are <15 cm in height and when majority of thistles have emerged and are actively growing.

⁷ Apply to actively growing mallow from 2-6 leaf stage, plants will be stunted but overall populations may not be reduced.

⁸ Apply when weeds are no taller than 15 cm in height. A control program includes both chemical application and tillage.

GROUP 2 & 4

UNIQUE TO VIKING

ACTIVE INGREDIENT

- Fluroxypyr 180 g/L emulsifiable concentrate (EC)
- Thifensulfuron methyl 50% + Tribenuron methyl 25% wettable granules (SG)

APPLICATION RATE AND ACRES TREATED

- **Rates:** 240 mL/acre **VIKING Fluroxypyr Herbicide** + 8 grams/acre **VIKING Navik Herbicide**
- **Acres Treated:**
 - **Case:** 80 acres
 - **Bulk:** 960 acres

PACKAGE SIZE

- **Case:** 2 x 9.6 L jug **VIKING Fluroxypyr Herbicide** + 2 X 320-gram bottles **VIKING Navik Herbicide**
- **Bulk:** 230 L tote **VIKING Fluroxypyr Herbicide** + (24 X 320 g) **VIKING Navik Herbicide**

WATER VOLUME

- 5-10 US gallons/acre (20-40 L/acre)

SURFACTANT

- Not required if mixed with a wild oat herbicide.
- If used alone, Agral® 90 at 2 L per 1,000 L water

RAINFAST

- Minimum 4 hours



VIKING

vikingcropproduction.com



HOW VIKING BREVIK WORKS:

Systemic herbicide that contains two complementary active ingredients (group 2 and 4) which are absorbed through roots and leaves and translocated in the plant through phloem and xylem. The two components work within the plant to control exposed and underground plant tissue. The herbicide activates mimic naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Susceptible plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Crop stage:** 2 leaf – flag leaf
- **Weed stage:** Less than 10 cm in height or diameter.

CROP ROTATIONS

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Clodinafop Herbicide, VIKING Fenoxaprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Pinoxaden 50 Herbicide, VIKING MPCA Ester 600 Herbicide @190 mL/acre, Simplicity™, Traxos®, Varro®.**

GRAZING RESTRICTIONS

- Livestock may be grazed on treated areas 7 days after application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.
- Preharvest Interval
- Allow 7 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application.

STORAGE

- Product may be frozen. Store this product away from other pesticides, food or feed. Store product in original container only. Not for use or storage in or around the home.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of **VIKING Navik Herbicide** and agitate until dissolved.
3. Add the required amount of grass weed control tank mix partner.
4. Add the required amount of **VIKING Fluroxypyr Herbicide**.
5. If desired add the required amount of **Viking MPCA 600 Ester Herbicide**.
6. Add any required surfactants, complete filling of sprayer and apply.
7. If application is stopped prior to completion, resuspend spray solution by full agitation prior to commencing spraying again.
8. Product will degrade if left in the sprayer for more than 24 hours after mixing.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best results will occur with temperatures between 12°C and 24°C in warm moist conditions when weeds are small and actively growing. Ensure thorough spray coverage of target weeds and use higher water volumes with dense crop canopy and/or large weeds. Typical symptoms (discoloration, twisting of stems) of dying weeds may not be visible for several days to 2 weeks after application, depending on growing conditions. Control of weeds may take 3 - 4 weeks. Degree of control and duration of effect are dependent on weed sensitivity, weed size, crop competition, growing conditions at and following treatment, and spray coverage. When weeds are stressed due to drought, flooding or prolonged hot or cool temperatures (less than 8°C or greater than 27°C), control can be reduced or delayed since weeds are not actively growing. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as unsatisfactory control can result. Application to crops that are stressed by severe weather conditions, frost, low fertility, water-logged soil (soil at or near field capacity), disease or insect damage may result in crop injury. Drought, disease, or insect damage following application may also result in crop injury.

THISTLE CONTROL HERBICIDE

VIKING™ CLOPYRALID

Herbicide

Ferocious™, powerful, superior control of Canada thistle, wild buckwheat and other tough-to-kill weeds (high rate) plus a wide window of application, excellent crop safety and multiple tank mix options for use in canola, cereals, flax and other crops.

GROUP 4

REPLACES: Lontrel™ 360

REGISTERED CROPS AND USES

- Canola
- Spring wheat
- Barley
- Oats
- Flax
- Sugar beets
- Seedling and established forage grasses
- Rangeland and non-crop farmland
- See product label for additional crops and uses.

WEEDS CONTROLLED

170 mL/acre: (105 acres/case)

- Canada thistle (top growth)
- Vetch
- Alsike clover

227 mL/acre (78 acres/case):

- Canada thistle
- Scentless chamomile
- Wild buckwheat
- Perennial sow thistle (top growth)
- Common groundsel
- Volunteer alfalfa
- Common ragweed
- Sheep sorrel¹
- Ox-eye daisy¹

340 mL/acre (52 acres/case):

- Previously listed weeds
- Canada thistle (season long control of top growth with a reduction in population the following year)

¹Suppression

ACTIVE INGREDIENT

- Clopyralid 360 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Rate:**
Cereals or flax: 112 mL/acre when mixed with 2,4 D ester or MPCA ester.
Canola: 170-336 mL/acre
See product label for application rates by crop, weed, and tank mix partner.
- **Acres Treated:**
Cereals or flax: 160 acres/case when mixed with MCPA or 2,4-D amine or ester
Canola: 52-105 acres/case

PACKAGE SIZE

- **Case:** 2 X 8.9 L jugs

WATER VOLUME

- 10 US gallons/acre (40 L/acre)

SURFACTANT

- None required

RAINFAST

- Minimum 4 hours


VIKING
vikingcropproduction.com




HOW VIKING CLOPYRALID WORKS:

Product is absorbed through roots and leaves and translocated in the plant through phloem and xylem and the components work within the plant to control exposed and underground plant tissue. The herbicide mimics naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Affected plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Crop stage:**
 - **Spring wheat, barley, oats:** 3 leaf to early flag
 - **Canola:** 2 to 6 leaf
 - **Flax:** 2 to 6 inches tall
 - **Other crops:** See product label
- **Weed stage:** Rosette – pre-bud

CROP ROTATIONS

- **1 year after application:** wheat barley, canola, rye, sugar beets, flax, mustard, oats or summerfallow.
- Do not grow crops other than those listed for at least 2 years.

REGISTERED AND SUPPORTED TANK MIXES*

- Cereals: **VIKING Askim Herbicide, VIKING Clodinafop Herbicide, VIKING Fenoxaprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Florasulam Herbicide, VIKING Lidingo Herbicide, VIKING Navik Herbicide, VIKING 2,4-D Ester 700 Herbicide, VIKING MCPA Ester 600 Herbicide**, 2,4-D or MCPA amine
- RoundupReady® canola: **VIKING 540 Glyphosate Herbicide, VIKING Clethodim Herbicide**
- Clearfield® canola: Ares™, Amity™
- Flax: **VIKING Clethodim Herbicide, VIKING MCPA Ester 600 Herbicide**
- See product label for additional tank mix options and use rates.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. If required add the correct amount of any dry formulation product.
3. If tank mixing, add the required amount of grassy weed control tank mix partner.
4. Add the required amount of **VIKING Clopyralid Herbicide**.
5. Add surfactant if required, then complete filling of spray tank, and apply.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

GRAZING RESTRICTIONS

- Livestock may be grazed on treated areas immediately after application.

PREHARVEST INTERVAL

- Pre-harvest interval is crop specific – see product label for details.

STORAGE

- Store product away from food or feed. Store in heated storage; if product is frozen, bring to room temperature and agitate before use. Keep product from freezing; if stored for 1 year or longer, shake well before using.

PERFORMANCE TIPS

Best control will occur with temperatures between 12°C C and 24°C in warm moist conditions when weeds are small and actively growing. Thistle control is rate dependent. Higher rates will improve control and the highest rate will extend control into the following year. Applications 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. Maintain high water volumes for control of wild buckwheat, especially if it is larger stage. Under dry soil conditions and poor growing conditions, control of Canada thistle and other weeds may be severely reduced. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as unsatisfactory control can result. Very dry soil conditions following application can result in a risk of injury to field peas, beans, clover, alfalfa or other legumes grown in rotation. Do not seed lentils on treated fields for at least 2 years.

VIKING™ DRAMMEN

Herbicide

Ferocious™, powerful, outstanding control of Canada thistle, wild buckwheat, volunteer canola (including all HT varieties), and 26 other tough-to-kill weeds (high rate) plus a wide window of application, excellent crop safety and multiple tank mix options for use in wheat, barley, oats, flax, established timothy, and canary seed.

GROUP 4

REPLACES: Curtail™ M

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley
- Oats
- Flax
- Established timothy
- Canary seed
- Do not use on timothy destined for export.

WEEDS CONTROLLED

Low Rate (40 acres/case)

- Canada thistle¹ (low infestations)
- Annual sunflower
- Burdock
- Cocklebur
- Field horsetail²
- Flixweed³ (2-4 leaf)
- Lamb's-quarters
- Plantain²
- Prickly lettuce
- Ragweed
- Shepherd's-purse³
- Stinkweed³
- Vetch
- Volunteer sunflower
- Wild mustard
- Wild radish

High Rate (30 acres/case) (includes weeds controlled at the low rate)

- Canada thistle¹ (med-high infestations)
- Common groundsel
- Dandelion³
- Kochia⁴ (2-4 leaf)
- Redroot pigweed
- Russian pigweed
- Scentless chamomile (2-4 leaf)
- Smartweed
- Sow-thistle (annual)
- Sow-thistle⁴ (perennial)
- Tartary buckwheat
- Volunteer canola⁵
- Wild buckwheat

¹ Season-long control with some regrowth in the fall (top growth control)

² Top growth control only

³ Spring rosettes only

⁴ Suppression

⁵ Including all HT varieties

ACTIVE INGREDIENT

- Clopyralid 50 g/L + MCPA ester 280 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Rates:**
 - Low: 600 mL/acre
 - High: 800 mL/acre
- **Acres Treated:** 30-40 acres/case.
 - **Case:** 30-40 acres
 - **Bulk:** 96 L drum: 120-160 acres
576 L tote: 720-960 acres

PACKAGE SIZE

- **Case:** 2 X 12 L jugs
- **Bulk:** 96 L, 576 L

WATER VOLUME

- 10 -15 US gallons/acre (40 - 60 L/acre)

SURFACTANT

- Not required

RAINFAST

- Minimum 4 hours





HOW VIKING DRAMMEN WORKS:

Product is absorbed through roots and leaves and translocated in the plant through phloem and xylem and the components work within the plant to control exposed and underground plant tissue. The herbicide mimics naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Affected plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Crop stage:**
- **Cereals:** 3 leaf to just before flag leaf
- **Flax:** 2 to 6 inches tall
- **Timothy, Canary seed:** 3 leaf to just before flag leaf emergence
- **Weed stage:** 1-4 leaf stage, and when Canada thistle is between 10 cm and early bud stage

CROP ROTATIONS

- 1 year after application: wheat barley, canola, rye, sugar beets, flax, mustard, oats, peas[†] or summerfallow.
- Do not grow crops other than those listed for at least 2 years.

[†] For pea rotation, rainfall from June 1 to August 31 in the year of application must be greater than 140 mm (5.5. inches) and annual rainfall must be greater than 175 mm (6.9 inches).

REGISTERED AND SUPPORTED TANK MIXES*

- **Cereals:** VIKING Clodinafop Herbicide, VIKING Fenoxaprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Pinoxaden 50 Herbicide, Viking Navik Herbicide, Liquid Achieve™, Simplicity™, Traxos®, Varro®
- **Flax:** Viking Clethodim Herbicide

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. If required add the correct amount of any dry formulation product.
3. If tank mixing, add the required amount of grassy weed control tank mix partner.
4. Add the required amount of **VIKING Drammen Herbicide**.
5. Add surfactant if required, then complete filling of spray tank, and apply.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

GRAZING RESTRICTIONS

- Livestock may be grazed on treated areas 7 days after application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.

PREHARVEST INTERVAL

- Allow 7 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application.

STORAGE

- Store this product away from food or feed. Do not freeze. If product is frozen, bring to room temperature and agitate before use.

PERFORMANCE TIPS

Best control will occur with temperatures between 12°C and 24°C in warm moist conditions when weeds are small and actively growing. Optimum thistle control will occur when thistles are in the rosette to pre-bud stage. Thistles that are not emerged or are already in the bud stage will not be controlled. Use higher rate and higher water volumes with heavier weed pressure, larger weeds and thicker crop canopy. Typical symptoms (twisting of the stems) of dying weeds may not be visible for up to 2 weeks after application, depending on growing conditions. Control of weeds may take 3-4 weeks. When weeds are stressed due to drought, flooding or prolonged hot or cool temperatures (less than 8°C or more than 27°C), control can be reduced or delayed since weeds are not actively growing. Weed escapes may occur under prolonged stress conditions or low fertility. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as unsatisfactory control can result. Very dry soil conditions following application can result in a risk of injury to field peas, beans, clover, alfalfa or other legumes grown in rotation. Do not seed lentils on treated fields for at least 2 years.

PULSE CROP BROAD SPEC HERBICIDE

VIKINGTM
FALUN

Herbicide

FerociousTM, outstanding control or suppression of wild oats, green smartweed, redroot pigweed, stinkweed, wild mustard and 17 additional tough to kill grass and broadleaf weeds, plus 2 modes of action and improved rotational crop flexibility as compared to other pulse crop herbicides for use in field peas and Clearfield[®] lentils.

GROUP 1 & 2

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- Field peas
- Clearfield[®] lentils

WEEDS CONTROLLED

Broadleaf Weeds

- Cow cockle
- Green smartweed
- Lamb's-quarters²
- Redroot pigweed
- Russian thistle
- Shepherd's purse
- Stinkweed
- Volunteer canola (only non-Clearfield varieties)
- Wild mustard

Grass Weeds

- Barnyard grass
- Green foxtail
- Fall panicum
- Proso millet
- Volunteer cereals
- Volunteer corn
- Volunteer canary grass
- Wild oats
- Witchgrass
- Yellow foxtail

WEEDS SUPRESSED

- Cleavers
- Kochia
- Japanese brome grass
- Round-leaved mallow
- Wild buckwheat

ACTIVE INGREDIENT

- **NEW** Clethodim 240 g/L emulsifiable concentrate
- Imazamox 70% wettable granule (WG)

APPLICATION RATE AND
ACRES TREATED

- **Application rate:** 50 mL/acre **VIKING Clethodim Herbicide** + 11.7 grams/acre **VIKING Imazamox Herbicide**
- **Acres treated:** 160 acres/case

PACKAGE SIZE

- **Case:** 8 L **VIKING Clethodim Herbicide** + 4 x 470 g packages **VIKING Imazamox Herbicide**

WATER VOLUME

- 10 US gallons/acre (40 L/acre)

SURFACTANT

- **VIKING PHC Adjuvant** at 5 L per 1,000 L of water

RAINFAST

- Minimum 3 hours

¹ At 11.7 gram/acre rate

² 85% control only. Fields with heavy infestations or poor growing conditions at time of application will see weed escapes.



VIKING

vikingcropproduction.com

HOW VIKING FALUN WORKS:

With 2 modes of action (group 1 and 2), product is absorbed by foliage and roots and disrupts plant metabolism which causes growth to stop. Growth of susceptible plants stops soon after application, symptoms include discoloration (yellowing, browning), with complete control taking up to 2-4 weeks. Thorough coverage of susceptible weeds and good growing conditions are required for optimum control.

CROP STAGING

- **Crop stage:**
Field peas: 1-6 leaf stage
Clearfield lentils: 2-6 leaf stage
- **Weed stage:**
Broadleaf weeds: up to and including 4 leaf stage.
Grass weeds: 2- 4 leaf stage.

CROP ROTATIONS

- **1 year after application:** Field peas, canola[°], spring wheat, durum wheat, barley, tame oats, flax, Clearfield[®] sunflowers**
- There is insufficient data for other crops. Conduct a field bioassay the year before growing any crop other than those listed above.

[°] Initial injury to non-Clearfield[®] canola may be observed.

**Sunflower varieties with the Clearfield[®] trait

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Bentazon Herbicide**

GRAZING RESTRICTIONS

- Treated fields may be cut for feed or grazed 60 days after application.

PREHARVEST INTERVAL

- Field pea: Mature crop may be harvested 75 days after application.
- Clearfield lentil: Mature crop may be harvested 60 days after application.

STORAGE

- Store this product away from food or feed. Keep from freezing. Keep unused water-soluble bags in resealed original container, and keep packages dry at all times.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. Add the required amount of **VIKING Imazamox Herbicide** and agitate until product is fully dissolved.
3. If required, add the correct amount of any tank mix partners.
4. If required, add correct amount **VIKING Clethodim Herbicide**.
5. Add the required amount of **VIKING PHC Adjuvant**.
6. Fill the remainder of the tank with water and apply.
7. If application is paused prior to completion, agitate and resuspend spray solution prior to re-commencing spraying.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when applied between 12°C and 24°C during warm moist growing conditions when weeds are small and actively growing. Typical symptoms (discoloration at the growing point) may not be noticeable for several days to 2 weeks depending on growing conditions. For optimum control weeds must be emerged but less than 4 leaf stage for optimum control. Use higher water volumes for dense weed populations and thick crop canopies. Do not apply if temperatures of +5°C or lower are forecast within 3 days of application. Application just before or after cold temperatures can result in crop injury or reduced weed control. Control will be reduced, or crop injury may occur if plants are stressed by lack of moisture, excessive moisture, poor fertility, cold temperatures or other crop stress factors. **VIKING Falun Herbicide** can be persistent in soil. Drought, extremes in soil pH and excessive cold may result in an increased potential for injury to succeeding crops.

VIKINGTM FLORO

Herbicide

FerociousTM, powerful, and proven control or suppression of wild oats, grass weeds and 15 broadleaf weeds including redroot pigweed, stinkweed, volunteer canola and wild mustard for use in field peas.

GROUP 1 & 2

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- Field peas

WEEDS CONTROLLED

Broadleaf weeds

- Chickweed
- Cleavers
- Flixweed
- Green smartweed
- Redroot pigweed
- Shepherd's purse
- Stinkweed
- Stork's bill
- Volunteer canola (non-Clearfield® canola only)
- Volunteer tame mustard
- Wild mustard

Grass weeds

- Barnyard grass
- Green foxtail
- Persian darnel
- Volunteer barley
- Volunteer tame oats
- Volunteer wheat
- Wild oats
- Yellow foxtail

WEEDS SUPRESSED

- Hemp-nettle
- Kochia
- Lamb's-quarters
- Wild buckwheat

ACTIVE INGREDIENT

- NEW Clethodim 240 g/L emulsifiable concentrate (EC)
- Imazamox 35% + Imazethapyr 35% water dispersible granules (WDG)

APPLICATION RATE AND ACRES TREATED

- **Application rate:** 50 mL/acre **VIKING Clethodim Herbicide** + 17.2 grams/acre **VIKING Skien Herbicide**
- **Acres treated:** 160 acres/case.

PACKAGE SIZE

- **Case:** 8 L **VIKING Clethodim Herbicide** + 4 X 692 gram boxes (16 x 86.5 g water-soluble bags) **VIKING Skien Herbicide**

WATER VOLUME

- 10 US gallons/acre (40 L/acre)

SURFACTANT

- **VIKING PHC Adjuvant** at 5 L per 1,000 L of water.

RAINFAST

- 3 hours



HOW VIKING FLORO WORKS:

With 2 modes of action (group 1 and 2), product is absorbed by foliage and roots and disrupts plant metabolism which causes growth to stop. Growth of susceptible plants stops soon after application, symptoms include discoloration (yellowing, browning), with complete control taking up to 2-4 weeks. Thorough coverage of susceptible weeds and good growing conditions are required for optimum control.

CROP STAGING

- **Crop stage:** 1 to 6 true leaf stage.
- **Weed stage:**
Broadleaf weeds: Up to the 4 leaf stage.
Grass weeds: 2- 4 leaf stage.

CROP ROTATIONS

- 1 year after application: Barley, chickpeas, Clearfield® canola, Clearfield® lentils, durum wheat, field peas, spring wheat, tame oats.
- Conduct a field bioassay the year before growing any crop other than those listed above.
- Refer to label for area specific re-cropping restrictions.

REGISTERED AND SUPPORTED TANK MIXES*

- None

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Use 50 mesh or coarser filter screens.
2. Fill the spray tank 1/2 full of clean water and start agitation.
3. Add the required amount of **VIKING Skien Herbicide** and agitate until product is fully dissolved.
4. Add the required amount of **VIKING Clethodim Herbicide**.
5. Add the required amount of **VIKING PHC Adjuvant**.
6. Fill the remainder of the tank with water and apply.
7. If application is paused prior to completion, agitate and resuspend spray solution prior to re-commencing spraying.

Always read and follow all label precautions and directions.

GRAZING RESTRICTIONS

- Treated fields may be cut for forage or fed to livestock 60 days after application.

PREHARVEST INTERVAL

- Mature crop may be harvested 75 days after application.

STORAGE

- Store this product away from food or feed. Keep from freezing. Keep unused water-soluble bags in resealed original container, and keep packages dry at all times.

PERFORMANCE TIPS

Best control will occur when applied between 12°C and 24°C during warm moist growing conditions when weeds are small and actively growing. Typical symptoms (discoloration at the growing point) may not be noticeable for several days to 2 weeks depending on growing conditions. For optimum control weeds must be emerged but less than 4 leaf stage for optimum control. Use higher water volumes for dense weed populations and thick crop canopies. Do not apply if temperatures of +5°C or lower are forecast within 3 days of application. Application just before or after cold temperatures can result in crop injury or reduced weed control. Control will be reduced, or crop injury may occur if plants are stressed by lack of moisture, excessive moisture, poor fertility, cold temperatures or other crop stress factors. **VIKING Floro Herbicide** can be persistent in soil. Drought, extremes in soil pH and excessive cold may result in an increased potential for injury to succeeding crops. Do not grow LibertyLink® or Roundup Ready® canola the year after application of VIKING Floro Herbicide. Do not apply **VIKING Floro Herbicide** more than once per year.

VIKING™ GLUFOSINATE 150

Herbicide

Ferocious™, affordable broad-spectrum control of grass and broadleaf weeds for use in Glufosinate ammonium tolerant canola.

GROUP 10

REPLACES: Liberty®

REGISTERED CROPS AND USES

- Glufosinate ammonium tolerant canola

WEEDS CONTROLLED

(at 1.35 L/acre rate)

Barnyard grass	(1 to 4 leaf)	Redroot pigweed	(1 to 4 leaf)
Canada thistle	(suppression up to 10 cm tall)	Round-leaved mallow	(1 to 4 leaf)
Cleavers ²	(1 to 2 whorls)	Russian thistle	(up to 8 cm tall)
Common chickweed	(1 to 4 leaf pairs)	Scentless chamomile	(up to 10 cm tall)
Cow Cockle	(1 to 4 leaf)	Shepherd's-purse	(1 to 6 leaf)
Dandelion	(1 to 15 cm rosette)	Smartweed	(1 to 6 leaf)
Flixweed	(up to 10 cm tall)	Stinkweed	(1 to 8 leaf)
Green foxtail	(1 to 6 leaf, max. 3 tillers)	Stork's-bill	(1 to 3 leaf)
Hemp-nettle	(1 to 4 leaf pairs)	Volunteer barley ¹	(1 to 4 leaf, max. 2 tillers)
Kochia	(up to 8 cm tall)	Volunteer flax	(up to 6 cm tall)
Lady's-thumb	(1 to 6 leaf)	Volunteer wheat	(1 to 4 leaf, max. 2 tillers)
Lamb's-quarters	(1 to 6 leaf)	Wild buckwheat	(1 to 3 leaf)
Perennial sow thistle	(1 to 8 leaf)	Wild oats	(1 to 4 leaf, max. 2 tillers)
Quackgrass	(suppression - 1 to 4 leaf)	Wild mustard	(1 to 5 leaf)

¹ Top Growth Suppression Only
² Suppression Only

ACTIVE INGREDIENT

- Glufosinate-ammonium 150 g/L SN

APPLICATION RATE

- See product label for application rates.

PACKAGE SIZE AND ACRES TREATED (at 1.35 L/acre application rate)

- **Bulk:**
1x108 L drum treats 80 acres.
1x500 L Tote treats 370 acres.
1x1000 L Tote treats 740 acres.

WATER VOLUME

- **Ground:** Minimum 10 US gallons/acre (40 L/acre)
- **Aerial:** 5 US gallons/acre (20 L/acre)

SURFACTANT

- Not required if used alone.

RAINFAST

- 1 hour





HOW VIKING GLUFOSINATE 150 WORKS:

Works primarily as a contact herbicide, interferes with a plant's ability to detoxify ammonia, and is absorbed by leaf and stem surfaces. Speed of action is influenced by environmental factors; at cool temperatures below 10° C, poor moisture and low humidity, speed of action and control may be reduced.

CROP STAGING

- **Crop stage:** Cotyledon up to, but prior to bolting
- **Weed stage:** See Weeds Controlled section.

CROP ROTATIONS

- All major crops can be grown the year after application

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Clethodim Herbicide**

GRAZING RESTRICTIONS

- All portions of treated crops may be fed to livestock

PREHARVEST INTERVAL

- No preharvest interval is indicated.

STORAGE

- Should not be frozen. If stored for one year or longer, shake well before using.
- Keep away from feeds, seeds, fertilizers, plants and foodstuffs

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. If tank mixing with **VIKING Clethodim Herbicide**, add the required rate of **VIKING Phosphate Ester Adjuvant**.
3. Add the required amount of **VIKING Glufosinate 150 Herbicide**.
4. If required, add the correct amount of **VIKING Clethodim Herbicide**.
5. Add the remaining amount of water and spray out immediately.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.
7. Always clean out spray tank thoroughly before applying other products.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when applied between 15°C and 27°C in warm, moist, sunny growing conditions when weeds are small and actively growing. Control may be reduced when if applied on a cloudy day or at temperatures below 10°C or when environmental conditions are cool and dry. **VIKING Glufosinate 150 Herbicide** is a contact herbicide and requires water volume of at least 10 gal/acre for adequate coverage. Avoid fine droplet sizes as the potential for spray drift increases significantly. Where a rate range is given, the higher rate should be used when weed or crop growth is dense, when weeds are larger or more mature, or when environmental conditions are cool and dry. Typical symptoms (discoloration, bleaching effect) of dying weeds are usually noticeable within 7 days of application, depending on growing conditions. Control of weeds may take 7-14 days; regrowth may occur under warm moist conditions suitable for weed growth and if crop canopy is poor. A second application may be necessary if weed growth resumes after first application and before canopy close. Do not apply more than 2.97 L/ac total in one year.

VIKING™ 540 GLYPHOSATE

Herbicide

Ferocious™, affordable potassium salt 540-gram formulation glyphosate choice.

GROUP 9

REPLACES: Glyphosate 540

REGISTERED CROPS AND USES

- Pre-seed
- Summerfallow
- Pre-harvest and post-harvest applications
- Registered glyphosate tolerant crops
- Non-crop and industrial uses

WEEDS CONTROLLED

- Same weeds controlled as Roundup®
- See product label for a complete list of weeds controlled.

ACTIVE INGREDIENT

- Glyphosate 540 g/L soluble concentrate (SC) present as potassium salt

APPLICATION RATE AND ACRES TREATED

- See product label for application rates.

PACKAGE SIZE

- 500 L tote
- 1000 L tote

WATER VOLUME

Required water volume is crop and use specific. See product label for requirements

SURFACTANT

- Not required for most uses.
- Some uses required the addition of 350 mL/acre of a surfactant registered for use such as Agral® 90 or Ag-Surf®. See product label for details.

RAINFEST

- 1 hour

HOW VIKING 540 GLYPHOSATE WORKS:

A non-selective, systemic herbicide that moves from the foliage into the roots and kills the entire plant.

CROP STAGING

Crop	Stage
Glyphosate tolerant canola	Cotyledon to 6 leaf
Glyphosate tolerant soybeans	First trifoliolate to flowering
Glyphosate tolerant corn	Up to 8 leaves
Pre-seed, summerfallow, pre-harvest post-harvest	See label for use

CROP ROTATIONS

- Grow all major crops the year after application

REGISTERED AND SUPPORTED TANK MIXES*

- Tank mixes are crop-and-use-specific. See product label for tank mix recommendations.

GRAZING RESTRICTIONS

- All portions of treated crops may be fed to livestock.

PREHARVEST AND GRAZING INTERVAL IN DAYS

- No preharvest interval is indicated.

STORAGE

- Store this product away from food or feed. Heated storage is not required. If product is frozen warm to room temperature and agitate before use. Avoid contamination of seed, feed, and foodstuffs.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of dry, soluble concentrate, or liquid tank mix partner products.
3. Add the required amount of **VIKING 540 Glyphosate Herbicide**.
4. Add the required amount of surfactant if needed and apply.
5. Always refer to tank mix partner labels for specific tank mix requirements.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

For best performance apply during warm moist growing conditions when temperatures are between 12°C and 24° C. Wilting and yellowing of annual weeds will occur within 2-4 days, perennials will require 7-10 days or longer, and full control may take 3-4 weeks depending on growing conditions. Control may be slowed or reduced under cool, wet cloudy conditions or if plants are stressed by drought, frost, or other stress conditions. Dirty water, hard water, water with suspended soil or organic matter or water containing calcium (Ca+), magnesium (Mg+), or iron (Fe+) ions will reduce control.

VIKING™ HAMAR

Herbicide

Ferocious™, proven, and trusted control of wild buckwheat, volunteer canola and control or suppression of 28 additional annual and perennial broadleaf weeds, plus 2 modes of action, no re-cropping restrictions, excellent crop safety and a wide window of application for use in wheat, barley, oats and many different crops.

GROUP 4 & 6

REPLACES: Buctril® M

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Winter wheat
- Barley
- Oats
- Flax (including Low Linolenic Acid Varieties)
- Corn (field, sweet),
- Fall rye
- Canary seed
- Seedling grasses, established grasses, perennial cereal rye.

WEEDS CONTROLLED

Seedling to 4-leaf stage

- American nightshade
- Ball mustard
- Bluebur
- Cocklebur
- Cow cockle¹
- Flixweed
- Green smartweed
- Kochia²
- Lady's-thumb
- Night flowering catchfly
- Pale smartweed
- Redroot pigweed
- Russian thistle²
- Scentless chamomile³
- Shepherd's-purse
- Velvetleaf⁴
- Volunteer canola⁵
- Volunteer sunflower

Seedling 6-leaf stage

- Wild tomato

Seedling to 8-leaf stage

- Common buckwheat
- Common groundsel
- Common ragweed
- Lamb's-quarters
- Stinkweed
- Tartary buckwheat
- Wild buckwheat
- Wild mustard
- Wormseed mustard

Top Growth Control

- Canada thistle
- Perennial sow-thistle

¹ In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled.

² Spray before plants are 5 cm high.

³ Spring annuals only.

⁴ Spray before plants are 8 cm high.

⁵ Including all HT varieties

ACTIVE INGREDIENT

- Bromoxynil 280 g/L + MCPA Ester 280 g/L emulifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Application rate:** 400 mL/acre
- **Acres treated:**
 - **Case:** treats 40 acres
 - **Bulk:** 500 L or 1000 L tote

PACKAGE SIZE

- **Case:** 2 X 8 L jugs
- **Bulk:** 500 L or 1000 L tote

WATER VOLUME

- **Ground:** Minimum 5 US gallons/acre (20 L/acre) in all crops except corn and seedling grasses.
- **Corn:** 20-30 US gallons/acre. (80-120 L/acre)
- **Seedling grasses:** minimum US 15 gallons/acre. (60 L/acre).
- **Aerial*** (Wheat, barley, oats only): Minimum 3 US gallons/acre (12 L/acre). Use higher rates in heavier crop canopy.

*see label for specific tank mix aerial application restrictions.

SURFACTANT

- None required.

RAINFAST

- Minimum 1 hour


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HOW VIKING HAMAR WORKS:

This product contains two active ingredients, a contact herbicide and systemic herbicide. The bromoxynil active is a contact type herbicide and inhibits photosynthesis and plant respiration. The MCPA active is absorbed through leaves and is readily translocated in the plant with speed of control dependent on application and growing conditions. Weeds stop growing shortly after application, with small burnt spots appearing on the leaf can within hours; death takes up to 2 weeks. Good spray coverage is essential. Poor results may be expected if there is poor coverage or poor penetration through a dense crop canopy.

CROP STAGING

- **Crop Stage:**
 - **Spring wheat, durum wheat, barley:** 2 leaf to early flag leaf
 - **Winter wheat:** 2 to 4 leaf stage in the fall, emergence to early flag leaf in the spring
 - **Flax:** 2 to 4 inches tall
 - **Corn:** 4 to 6 leaf
 - **Canary seed:** 3 to 5 leaf
 - **Seedling grasses:** 2 to 4 leaf
 - **Established grasses:** (timothy only): Prior to shot blade in seed production year
- Weed stage: See “weeds controlled” section

CROP ROTATIONS:

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- **Spring wheat:** VIKING Clodinafop Herbicide, VIKING Fenoxoprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Pinoxaden Herbicide, VIKING Navik Herbicide, Simplicity™
- **Flax only:** VIKING Clethodim Herbicide

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. If required, add the correct amount of any dry formulation products.
3. If required, add the correct amount of grassy weed tank mix partner.
4. Add the required amount of **VIKING Hamar Herbicide**.
5. Add any required surfactant.
6. Complete filling of sprayer and apply.
7. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

GRAZING RESTRICTIONS:

- Harvest forage or cut hay 30 days after application.
- Graze fields 30 days after application.

PREHARVEST INTERVAL:

- Mature crop may be harvested 30 days after application.

STORAGE:

- Store this product away from food or feed. Product may be frozen; if product becomes frozen, gently warm contents and agitate container before use.

PERFORMANCE TIPS

Best results will occur when applied with temperatures between 15°C and 27°C in warm moist conditions when weeds are in the seedling stage. Good spray coverage is essential - use higher water volumes in heavy crop canopy or weed pressure. Typical symptoms of dying weeds will be visible from several hours to several days after application depending on growing conditions. Control of weeds may take up to 2-3 weeks. Avoid spraying in severe drought. Do not spray flax in hot humid weather when daytime temperatures are over 25° C. Weed control may be reduced during stress conditions, e.g. drought, excessive moisture, heat or cold stress, if weeds have initiated flowering, or if heavy infestations exist.

VIKING™ HARSTAD

Herbicide

Ferocious™, proven, and trusted control of wild buckwheat, stinkweed and redroot pigweed plus control or suppression of 22 additional annual broadleaf weeds, 2 modes of action, no re-cropping restrictions, tank mix options, good crop safety and a wide window of application for use in spring and winter wheat.

GROUP 4 & 6

REPLACES: Thumper®

REGISTERED CROPS AND USES

- Spring and winter wheat

WEEDS CONTROLLED

Seedling to 4-leaf stage

- | | |
|---------------------------|--------------------------------|
| • American nightshade | • Night-flowering catchfly |
| • Ball mustard | • Pale smartweed |
| • Bluebur | • Pigweed ¹ |
| • Cocklebur | • Redroot pigweed |
| • Common ragweed | • Russian thistle ² |
| • Cow cockle ¹ | • Shepherd's purse |
| • Flixweed ⁴ | • Stinkweed ^{1,4} |
| • Green smartweed | • Velvetleaf ³ |
| • Lady's-thumb | • Volunteer sunflower |

Seedling to 8-leaf stage

- | | |
|---------------------|-------------------------------|
| • Common buckwheat | • Stinkweed ^{1,4} |
| • Common groundsel | • Wild mustard ^{1,4} |
| • Lamb's-quarters | |
| • Tartary buckwheat | |
| • Wild buckwheat | |

¹ In normal conditions will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled.

² Spray before plants are 5 cm high.

³ Spray before plants are 8 cm high.

⁴ The addition of 2,4-D Ester 700 (up to an additional 220 mL/acre) is recommended for larger overwintered weeds (fall rosettes).

ACTIVE INGREDIENT

- Bromoxynil 280 g/L emulsifiable concentrate (EC)
- 2,4-D Ester 660 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Application rate:** 400 mL/acre **VIKING Bromoxynil Herbicide** + 170 mL/acre **VIKING 2,4-D Ester 700 Herbicide**.
- **Acres treated:** 40 acres/case

PACKAGE SIZE

- **Case:** 2 X 8.0 L jugs **VIKING Bromoxynil Herbicide** + 6.8 L jug **VIKING 2,4-D Ester 700 Herbicide**.

WATER VOLUME

- **Ground:** Minimum 10 US gallons/acre (40 L/acre).
- **Aerial:** Minimum 3 US gallons/acre (12 L/acre).

SURFACTANT

- None required.

RAINFEST

- Avoid application when heavy rain is forecast.
- Minimum 2 hours


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HOW VIKING HARSTAD WORKS:

This product contains two active ingredients, a contact herbicide and systemic herbicide. The bromoxynil active is a contact type herbicide and inhibits photosynthesis and plant respiration. The 2,4-D Ester active is absorbed through leaves and is readily translocated in the plant with speed of control dependent on application and growing conditions. Weeds stop growing shortly after application, with small burnt spots appearing on the leaf can within hours; death takes up to 2 weeks. Good spray coverage is essential. Poor results may be expected if there is poor coverage or poor penetration through a dense crop canopy.

CROP STAGING

- **Crop stage:**
 - **Spring wheat:** 3 leaf expanded to just before flag leaf
 - **Winter wheat:** early in spring as soon as weeds appear and before the shot blade stage.
- **Weed stage:** See “weeds controlled” section

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **Spring wheat:** VIKING Clodinafop Herbicide, VIKING Fenoxoprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Navik Herbicide, Simplicity™, Varro®

GRAZING RESTRICTIONS

- Treated crop may be grazed or fed to livestock 25 days after application.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

PREHARVEST INTERVAL

- Mature crop may be harvested 65 days after application.

STORAGE

- Store this product away from food or feed. Product may be frozen; if product becomes frozen, gently warm contents and agitate container before use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. If required, add the correct amount of any dry formulation products.
3. If required, add the correct amount of grassy weed tank mix partner.
4. Add the required amount of **VIKING Bromoxynil Herbicide**.
5. Add the required amount of **VIKING 2,4-D Ester 700 Herbicide**.
6. Add any required surfactant.
7. Complete filling of sprayer and apply.
8. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best results will occur when applied with temperatures between 15°C and 27°C in warm moist conditions when weeds are in the seedling stage. Good spray coverage is essential - use higher water volumes in heavy crop canopy or weed pressure. Typical symptoms of dying weeds will be visible from several hours to several days after application depending on growing conditions. Control of weeds may take up to 2-3 weeks. Avoid spraying in severe drought. Weed control may be reduced during stress conditions, e.g. drought, excessive moisture, heat or cold stress, if weeds have initiated flowering, or if heavy infestations exist.

PULSE CROP BROAD SPEC
HERBICIDEVIKING™
IMAZAMOX

Herbicide

Ferocious™, outstanding, and proven control or suppression of green smartweed, redroot pigweed, stinkweed, and wild mustard plus 16 tough to kill grass and broadleaf weeds, numerous tank mix options and improved rotational crop flexibility as compared to other pulse crop herbicides for use in field peas and Clearfield® lentils.

GROUP 2

REPLACES: Solo®

REGISTERED CROPS AND USES

- Field peas
- Clearfield® lentils

WEEDS CONTROLLED¹

(up to 4 leaf stage)

- | | |
|--------------------------------|---------------------------------------|
| • Barnyard grass | • Stinkweed |
| • Cow cockle | • Volunteer barley |
| • Green foxtail | • Volunteer canola ⁴ |
| • Green smartweed | • Volunteer durum wheat |
| • Lamb's-quarters ² | • Volunteer spring wheat ³ |
| • Redroot pigweed | • Volunteer tame oats |
| • Russian thistle | • Wild mustard ³ |
| • Shepherd's purse | • Wild oats ³ |

WEEDS SUPRESSED

- | | |
|------------------------|-----------------------|
| • Cleavers | • Round-leaved mallow |
| • Kochia | • Wild buckwheat |
| • Japanese brome grass | |

¹ At 11.7 gram/acre rate² 85% control only. Fields with heavy infestations or poor growing conditions at time of application will see weed escapes.³ Not including Clearfield® varieties.

ACTIVE INGREDIENT

- Imazamox 70% wettable granule (WG)

APPLICATION RATE AND
ACRES TREATED

- **Application rate:** 11.7 grams/acre
- **Acres Treated:** 40 acres/case

PACKAGE SIZE

- **Case:** 4 X 117.5 water soluble bags

WATER VOLUME

- 10 US gallons/acre (40-160 L/acre)

SURFACTANT

- **VIKING PHC Adjuvant** at 5 L per 1,000 L of water

RAINFAST

- Minimum 3 hours





HOW VIKING IMAZAMOX WORKS:

Absorbed by foliage and roots, disrupts plant metabolism via inhibition of the ALS enzyme, which causes growth to stop. Growth of susceptible plants stops soon after application, symptoms include discoloration (yellowing, browning), with complete control taking up to 2-4 weeks.

CROP STAGING

- **Crop stage:** up to 6 node
- **Weed stage:** up to and including 4 leaf stage

CROP ROTATIONS

- **1 year after application:** Field peas, canola^A, spring wheat, durum wheat, barley, tame oats, flax, Clearfield® sunflowers^{**}
- There is insufficient data for other crops. Conduct a field bioassay the year before growing any crop other than those listed above.

^AInitial injury to non-Clearfield® canola may be observed.

^{**}Sunflower varieties with the Clearfield® trait

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Bentazon Herbicide, VIKING Clethodim Herbicide, VIKING Quizalofop Herbicide.**

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Treated fields can be grazed or cut for feed 20 days after application.

PREHARVEST INTERVAL

- Treated crops can be harvested 60 days after application.

STORAGE

- Store this product away from food or feed. Keep from freezing. Keep unused water-soluble bags in resealed original container, and keep packages dry at all times.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. Add the required amount of **VIKING Imazamox Herbicide** and agitate until product is fully dissolved.
3. If required, add correct amount of tank mix partners.
4. Add the required amount of **VIKING PHC Adjuvant**.
5. Fill the remainder of the tank with water and apply.
6. If application is paused prior to completion, agitate and resuspend spray solution prior to re-commencing spraying.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when applied between 12°C and 24°C during warm moist growing conditions when weeds are small and actively growing. Typical symptoms (discoloration at the growing point) may not be noticeable for several days to 2 weeks depending on growing conditions. For optimum control weeds must be emerged but less than 4 leaf stage for optimum control. Use higher water volumes for dense weed populations and thick crop canopies. Do not apply if temperatures of +5°C or lower are forecast within 3 days of application. Application just before or after cold temperatures can result in crop injury or reduced weed control. Control will be reduced, or crop injury may occur if plants are stressed by lack of moisture, excessive moisture, poor fertility, cold temperatures or other crop stress factors. **VIKING Imazamox Herbicide** can be persistent in soil. Drought, extremes in soil pH and excessive cold may result in an increased potential for injury to succeeding crops.

PULSE CROP BROAD SPEC
HERBICIDEVIKING™
IMAZETHAPYR

Herbicide

Ferocious™, powerful and proven control or suppression of redroot pigweed, stinkweed, volunteer canola (non-Clearfield® varieties), and wild mustard plus 8 additional grass and broadleaf weeds, flushing weed control, and tank mix options for improved grass control for use in peas, soybeans, dry beans and many other crops.

GROUP 2

REPLACES: Pursuit®

REGISTERED CROPS AND USES

- Alfalfa (newly seeded purestand for forage or seed production)
- Alfalfa (established for seed production)
- Chickling vetch (seed production only)
- Dry bean (pinto, pink, red)
- Processing, snow peas (eastern Canada only)
- Field peas (western Canada only)
- Soybeans (Manitoba only)

WEEDS CONTROLLED¹

(up to 4 leaf stage)

- Chickweed
- Cleavers
- Green foxtail
- Hemp-nettle
- Redroot pigweed
- Shepherd's purse
- Smartweed
- Stinkweed
- Volunteer canola²
- Wild mustard

WEEDS SUPRESSED

- Wild oats²
- Wild buckwheat

^{*}Weed control is crop dependent. See label for details.¹ Only non-Clearfield® varieties.² For suppression of wild oats apply between the 2-4 leaf stage of the weed.

ACTIVE INGREDIENT

- Imazethapyr 240 g/L solution

APPLICATION RATE AND
ACRES TREATED

- 84 mL/acre (Western Canada only)
- **Case:** 78 acres (Western Canada only)
- See product label for additional application rates by region and crop.

PACKAGE SIZE

- **Case:** 2 X 3.3 L jugs

WATER VOLUME

- 10-40 US gallons/acre (40-160 L/acre)
- Required water volume is crop and use specific. See product label for requirements.

SURFACTANT

- Agral® 90 or AgSurf® at 2.5 L per 1,000 L of water

RAINFEST

- Minimum 3 hours

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HOW VIKING IMAZETHAPYR WORKS:

Absorbed by foliage and roots, disrupts plant metabolism via inhibition of the ALS enzyme, which causes growth to stop. Growth of susceptible plants stops soon after application, symptoms include discoloration (yellowing, browning), with complete control taking up to 2-4 weeks.

CROP STAGING

- **Crop stage:** up to 6 node
- **Weed stage:** up to and including 4 leaf stage

CROP ROTATIONS

- **Year of application:** Field peas, CL canola
- 1 year after application: Alfalfa, barley, CL canola, field peas, lentils, spring wheat
- **2 years after application:** Non-Clearfield canola
- Conduct a field bioassay the year before growing any crop other than those listed above.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Clethodim Herbicide, VIKING Quizalofop Herbicide**

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Treated fields can be grazed or cut for feed 30 days after application.

PREHARVEST INTERVAL

- Treated crops can be harvested 60 days after application.

STORAGE

- Store this product away from food or feed. Keep from freezing. DO NOT store below 0°C. If the product is exposed to temperatures below 0°C, make sure the product has thawed completely, and shake the container vigorously before use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. Add the required amount of **VIKING Imazethapyr Herbicide** and agitate until product is fully dissolved.
3. If required, add correct amount of tank mix partners.
4. Add the required amount of surfactant.
5. Fill the remainder of the tank with water and apply.
6. If application is paused prior to completion, agitate and resuspend spray solution prior to re-commencing spraying.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Apply in the black or grey wooded soils only. Best control will occur when applied between 12°C and 24°C during warm moist growing conditions when weeds are emerged but less than 4 leaf stage. Typical symptoms (discoloration at the growing point) may not be noticeable for several days for up to two weeks, control of weeds may take 3-4 weeks. Use higher water volumes for dense weed populations and thick crop canopies. Do not apply if temperatures of +5°C or lower are forecast within 3 days of application. Application just before or after cold temperatures can result in crop injury or yellowing. Weed control will be reduced, or crop injury may occur if plants are stressed by lack of moisture, excessive moisture, poor fertility, cold temperatures or other crop stress factors. **VIKING Imazethapyr Herbicide** can be persistent in soil and has re-cropping restrictions; drought, extremes in soil pH and cold temperatures may result in an increased risk of injury to succeeding crops.

VIKING™ KALMAR F2

Herbicide

Ferocious™, powerful and proven control of cleavers (including group 2 resistant biotypes), kochia (including group 2 & 9 resistant biotypes), and 20 other tough-to-kill weeds plus a wide window of application, excellent crop safety and multiple tank mix options for use in spring and winter wheat.

GROUP 4

REPLACES: OcTTain

REGISTERED CROPS AND USES

- Spring wheat
- Winter wheat

WEEDS CONTROLLED

- | | |
|----------------------------------|---|
| • Annual sunflower | • Oak-leaved goosefoot ⁵ |
| • Bluebur | • Plantain |
| • Blue lettuce ^{1,5} | • Prickly lettuce |
| • Burdock | • Ragweed |
| • Cleavers | • Redroot pigweed ⁵ |
| • Cocklebur | • Russian thistle ⁵ |
| • Dandelion ^{2,5} | • Shepherd's purse |
| • Docks ⁵ | • Smartweed ⁵ |
| • Dog mustard ⁵ | • Sweet clover |
| • Field bindweed ^{1,5} | • Stinkweed |
| • Field horsetail ¹ | • Tansy mustard ⁵ |
| • Field peppergrass ⁵ | • Tartary buckwheat ⁵ |
| • Flixweed | • Vetch |
| • Goat's-beard | • Volunteer canola (including all HT varieties) |
| • Gumweed ⁵ | • Volunteer flax (1-12 cm) |
| • Hairy galinsoga ⁵ | • Wild buckwheat ⁵ (1-4 leaf) |
| • Hedge bindweed ⁵ | • Wild mustard |
| • Hoary cress ¹ | • Wild radish |
| • Kochia ⁴ (2-8 leaf) | |
| • Lady's-thumb ⁵ | |
| • Lamb's-quarters | |
| • Leafy spurge ^{1,5} | |

WEEDS SUPRESSED

- | | |
|-----------------------------------|--|
| • Annual sow thistle ⁵ | • Stork's bill |
| • Canada thistle ^{1,5} | • Perennial sow thistle ^{1,5} |

ACTIVE INGREDIENTS

- Fluroxypyr 180 g/L emulsifiable concentrate (EC)
- 2,4-D ester 660 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Rates:** 240 mL/acre **VIKING Fluroxypyr Herbicide** + 245 mL/acre of **VIKING 2,4-D Ester 700 Herbicide**
- **Acres Treated:**
 - **Case:** 40 acres
 - **Bulk:** 960 acres

PACKAGE SIZE

- **Case:** 1 X 9.6 L jug **VIKING Fluroxypyr Herbicide** + 1 X 9.8 L jug **VIKING 2,4-D Ester 700 Herbicide**
- **Bulk:** 230 L **VIKING Fluroxypyr Herbicide** + 240 L **VIKING 2,4-D Ester 700 Herbicide**

WATER VOLUME

- 10 US gallons/acre (40 L/acre)

SURFACTANT

- Not required

RAINFAST

- Minimum 4 hours

¹ Top growth control only

² Spring rosettes

³ Including Group 2 resistant biotypes

⁴ Including group 2 and 9 resistant biotypes

⁵ Requires the addition of 2.3 oz ae/acre (100 mL) of 2,4-D Ester 660 g/L


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HOW VIKING KALMAR F2 WORKS:

Absorbed through roots and leaves and translocated in the plant through phloem and xylem, the components work within the plant to control exposed and underground plant tissue. The herbicide mimics naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Affected plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Crop stage:** 4 leaf – flag leaf
- **Weed stage:** 2 – 4 leaf stage

CROP ROTATIONS

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Clodinafop Herbicide, VIKING Fenoxaprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Navik Herbicide, Liquid Achieve™, Simplicity™^Δ, Traxos®**

[†]Spring only

^ΔDo not tank mix with Simplicity if adding additional 2,4-D Ester

GRAZING RESTRICTIONS

- Livestock may be grazed on treated areas 7 days after application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.

PREHARVEST INTERVAL

- Allow 7 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application.

STORAGE

- Store this product away from food or feed. Do not freeze. If product is frozen, bring to room temperature and agitate before use.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. If tank mixing, add the required amount of grassy weed control tank mix partner.
3. Add the required amount of **VIKING Fluroxypyr Herbicide**.
4. Add the required amount of **VIKING 2,4-D Ester 700 Herbicide**.
5. Add surfactant if required, then complete filling of spray tank, and apply.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur with temperatures between 12°C and 24°C in warm moist conditions when weeds are small and actively growing. Typical symptoms (twisting of the stems) of dying weeds may not be visible for up to 2 weeks after application, depending on growing conditions. Control of weeds may take 3-4 weeks. When weeds are stressed due to drought, flooding or prolonged hot or cool temperatures (less than 8°C or more than 27°C), control can be reduced or delayed since weeds are not actively growing. Weed escapes may occur under prolonged stress conditions or low fertility. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as unsatisfactory control can result.

VIKING™ LARVIK

Herbicide

Ferocious™, powerful and proven performance, with 3 powerful active ingredients for outstanding control of cleavers (including group 2 resistant biotypes), kochia (including Group 2 & 9 resistant biotypes), Canada thistle (seasonal control), hemp-nettle, and narrow-leaved hawk's-beard, plus control or suppression of 23 additional tough to kill broadleaf weeds, a wide window of application and excellent crop safety for use in spring wheat, durum wheat and barley.

GROUP 2 & 4

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley

WEEDS CONTROLLED

- | | |
|--------------------------------------|---------------------------------|
| • Ball mustard | • Lamb's quarters |
| • Canada thistle ¹ | • Narrow-leaved hawk's-beard |
| • Chickweed ² | • Redroot pigweed |
| • Cleavers ³ (1-6 whorl) | • Russian thistle |
| • Common groundsel | • Shepherd's purse |
| • Corn spurry | • Stinkweed |
| • Cow cockle | • Volunteer canola ⁵ |
| • Flixweed | • Volunteer flax (1-12 cm) |
| • Green smartweed | • Volunteer sunflower |
| • Hemp-nettle | • Wild buckwheat ⁶ |
| • Kochia ⁴ (up to 8 leaf) | • Wild mustard |
| • Lady's-thumb | |

WEEDS SUPRESSED

- | | |
|------------------------------------|---------------------------|
| • Round-leaved mallow ⁷ | • Stork's-bill (2-6 leaf) |
| • Scentless chamomile | • Toadflax ⁸ |
| • Sow thistle ¹ | |

¹ Seasonal control. For best results, apply before bud stage when thistles are no taller than 15 cm.

² Apply when chickweed is small and actively growing, but before canopy prevents thorough coverage.

³ Including group 2 resistant biotypes.

⁴ Including group 2 and 9 resistant biotypes.

⁵ Addition of MPCA is required to control Clearfield[®] canola, see label for recommended rates.

⁶ Cotyledon to 5-leaf. Under stress conditions control will be reduced and large plants may regrow after treatment.

⁷ Plants will be stunted but populations may not be reduced.

⁸ Apply when toadflax is no taller than 15 cm in height. A control program for this weed includes both frequent tillage and chemical application.

ACTIVE INGREDIENTS

- Fluroxypyr 180 g/L emulsifiable concentrate (EC)
- Thifensulfuron methyl 50% + Tribenuron methyl 25% wettable granules (WG)
- Clopyralid 360 g/L liquid (L)

APPLICATION RATE AND ACRES TREATED:

- **8 grams/acre VIKING Navik Herbicide + 240 mL/acre VIKING Fluroxypyr Herbicide + 85 mL/acre VIKING Clopyralid Herbicide**
- **Acres Treated:**
 - **Case:** 40 acres
 - **Bulk:** 960 acres

PACKAGE SIZE:

- **Case:** 1 X 320 gram bottle VIKING Navik Herbicide + 1 X 9.6 L jug VIKING Fluroxypyr Herbicide + 1 X 3.4 L jug VIKING Clopyralid Herbicide
- **Bulk:** 230 L tote VIKING Fluroxypyr Herbicide + 81 L drum VIKING Clopyralid Herbicide + (24 x 320 gram bottle) VIKING Navik Herbicide

WATER VOLUME:

- Minimum 10 US gallons/acre (40 L/acre)

SURFACTANT:

- None required.

RAINFEST:

- Minimum 4 hours


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HOW VIKING LARVIK WORKS:

VIKING Larvik Herbicide contains three complementary active ingredients (group 2 and 4) which are absorbed through roots and leaves and translocated in the plant through phloem and xylem. The three components work within the plant to control exposed and underground plant tissue. The herbicide activates mimic naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Susceptible plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP AND WEED STAGING:

- **Crop stage:** 3 leaf to flag leaf
- **Weed stage:** less than 10 cm in height or diameter.

CROP ROTATIONS:

- **1 year after application:** wheat barley, canola, rye, sugar beets, flax, mustard, oats, peas[†] or summerfallow.
- Crops not listed may be grown 2 years after application.

[†] For pea rotation, rainfall from June 1 to August 31 in the year of application must be more than 140 mm (5.5. inches) and annual rainfall must be more than 175 mm (6.9 inches).

REGISTERED AND SUPPORTED TANK MIXES*:

- **VIKING Pinoxaden 50 Herbicide, VIKING Clodinafop Herbicide, VIKING Fenoxaprop Herbicide, VIKING Flucarbazone Herbicide, MCPA 600 Ester @190 ml/acre, Axial[®], Simplicity[™], Traxos[®].**

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. Add the required rate of **VIKING Navik Herbicide** and fully dissolve.
3. Add the required amount of grass weed control tank mix partner.
4. Add the required amount of **VIKING Fluroxypyr Herbicide**.
5. Add the required amount of **VIKING Clopyralid Herbicide**.
6. Add any required surfactants, complete filling of sprayer and apply.
7. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

GRAZING RESTRICTIONS:

- Livestock can be grazed on treated areas 7 days after application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.

PREHARVEST INTERVAL:

- Allow 7 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application.

STORAGE:

- Store this product away from food or feed. Do not freeze. If product is frozen, bring to room temperature and agitate before use.

PERFORMANCE TIPS

Use 50 mesh or larger screens in spraying equipment. Best control will occur when applied between 12°C and 24°C in warm moist growing conditions. Ensure thorough spray coverage of target weeds and use higher water volumes with dense crop canopy and/or large weeds. Typical symptoms (discoloration) of dying weeds may not be noticeable for 1 to 3 weeks after application depending upon growing conditions. Control of weeds may take 3-4 weeks. Degree of control and duration of effect are dependent on weed sensitivity, weed size, crop competition, growing conditions at and following treatment, and spray coverage. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and regrowth may occur. Application to crops that are stressed by severe weather conditions, drought, frost, water-logged soils, disease, insect damage, or low fertility may result in crop injury. Product will degrade if left in the sprayer for more than 24 hours after mixing.

VIKING™ LIDINGO

Herbicide

Ferocious™, proven, and reliable control of cleavers (including group 2 resistant biotypes), kochia (including group 2 & 9 resistant biotypes), and 20 other tough-to-kill weeds plus a wide window of application, excellent crop safety and multiple tank mix options for use in spring wheat, durum wheat and barley.

GROUP 4

REPLACES: Trophy

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley

WEEDS CONTROLLED

- Annual sunflower
- Burdock (prior to 4 leaf)
- Cleavers³ (1-4 whorls)
- Cocklebur
- Flixweed¹
- Hemp-nettle (2-6 leaf)¹
- Kochia⁴ (2-8 leaf)
- Lamb's-quarters
- Mustards (except dog and tansy)
- Plantain
- Prickly lettuce
- Ragweeds
- Russian pigweed¹
- Shepherd's purse¹
- Stinkweed
- Vetch
- Volunteer canola^{1,5}
- Volunteer flax (1-12 cm)
- Wild radish

WEEDS SUPRESSED

- Green smartweed²
- Stork's-bill (1-8 leaf)
- Wild buckwheat²

¹Controlled with an additional 122 ml/ac MCPA 600 Ester

²Suppressed with an additional 122 ml/ac MCPA 600 Ester

³Including group 2 resistant biotypes

⁴Including group 2 and 9 resistant biotypes

⁵Including all HT varieties

ACTIVE INGREDIENTS

- Fluroxypyr 180 g/L emulsifiable concentrate (EC)
- MCPA ester 600 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Rates:** 240 mL/acre **VIKING Fluroxypyr Herbicide** + 250 mL/acre of **VIKING MCPA Ester 600 Herbicide**
- **Acres Treated:**
 - **Case:** 40 acres
 - **Bulk:** 960 acres

PACKAGE SIZE

- **Case:** 1 X 9.6 L jug **VIKING Fluroxypyr Herbicide** + 1 x 10 L jug **VIKING MCPA Ester 600 Herbicide**
- **Bulk:** 230 L tote **VIKING Fluroxypyr Herbicide** + 240 L tote **VIKING MCPA Ester 600 Herbicide**

WATER VOLUME

- 10 US gallons/acre (40 L/acre)

SURFACTANT

- Not required

RAINFAST

- Minimum 4 hours


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HOW VIKING LIDINGO WORKS:

Absorbed through roots and leaves and translocated in the plant through phloem and xylem, the components work within the plant to control exposed and underground plant tissue. The herbicide mimics naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Susceptible plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Crop stage:** 3 leaf – flag leaf
- **Weed stage:** 2 – 4 leaf stage

CROP ROTATIONS

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Clodinafop Herbicide, VIKING Fenoxaprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Pinoxaden 50 Herbicide, Liquid Achieve™, Simplicity™, Traxos®**

GRAZING RESTRICTIONS

- Livestock may be grazed on treated areas 7 days after application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

PREHARVEST INTERVAL

- Allow 7 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application.

STORAGE

- Store this product away from food or feed. Do not freeze. If product is frozen, bring to room temperature and agitate before use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. If tank mixing, add the required amount of grassy weed control tank mix partner.
3. Add the required amount of **VIKING Fluroxypyr Herbicide.**
4. Add the required amount of **VIKING MCPA Ester 600 Herbicide.**
5. Add surfactant if required, then complete filling of spray tank, and apply.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur with temperatures between 12°C and 24°C in warm moist conditions when weeds are small and actively growing. Typical symptoms (twisting of the stems) of dying weeds may not be visible for up to 2 weeks after application, depending on growing conditions. Control of weeds may take 3-4 weeks. When weeds are stressed due to drought, flooding or prolonged hot or cool temperatures (less than 8°C or more than 27°C), control can be reduced or delayed since weeds are not actively growing. Weed escapes may occur under prolonged stress conditions or low fertility. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as unsatisfactory control can result.

VIKING™ MALOY

Herbicide

Ferocious™, powerful and proven control of hemp-nettle, green smartweed, lady's-thumb, chickweed, and many more tough-to-kill broadleaf weeds plus great crop safety, a wide window of application and numerous tank mix options for use in spring wheat, durum wheat, barley, established grasses, pasture and rangeland, summerfallow, and pre-seed prior to seeding spring wheat, durum wheat and barley (tank mix only).

GROUP 2

REPLACES: Ally®

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley
- Established grasses, pasture and rangeland, and summerfallow.
- Pre-seed prior to seeding spring wheat, durum wheat and barley (tank mix only)
- See label for complete list of registered crops and uses.

WEEDS CONTROLLED OR SUPPRESSED

(when used alone at 3 grams/acre):

- | | |
|---------------------------------|---------------------------------|
| • Ball mustard | • Prostrate pigweed |
| • Bluebur | • Russian thistle ¹ |
| • Canada thistle ^{1,4} | • Redroot pigweed |
| • Chickweed | • Scentless chamomile |
| • Common groundsel | • Shepherd's purse |
| • Corn spurry | • Sow thistle ^{1,4} |
| • Cow cockle | • Stinkweed |
| • Flixweed | • Stork's-bill |
| • Green smartweed | • Tartary buckwheat |
| • Hemp-nettle | • Toadflax ¹ |
| • Kochia ² | • Volunteer canola ³ |
| • Lady's thumb | • Wild buckwheat ⁵ |
| • Lamb's-quarters ¹ | • Wild mustard |

¹ Suppression. Weed suppression is a visual reduction in weed competition (reduced population or vigour) as compared to an untreated area. Degree of suppression will vary with size of weed and environmental conditions prior to and following treatment.

² Not including Group 2 resistant biotypes

³ Not included Clearfield® varieties

⁴ Apply when majority of thistles have emerged and are less than 6 inches tall

⁵ Apply at the 1-3 leaf stage. Large weeds may re-grow after treatment

ACTIVE INGREDIENT

- Metsulfuron-methyl 60% water dispersible granules (WDG)

APPLICATION RATE AND ACRES TREATED

- **Application Rate:**
 - **Cereals:** 3 grams/acre when used alone, 2 grams/acre when mixed with 2,4-D amine or ester or MCPA amine or ester
- **Acres treated:**
 - **Cereals:** 27 acres/bottle (3 grams/acre) or 40 acres/bottle (2 grams/acre)
- Application rate is dependent on registered crop or use, desired weed control and tank mix partner – see product label for details.

PACKAGE SIZE

- **Bottle:** 80 grams

WATER VOLUME

- Ground (cereals): Minimum 5 - 10 US gallons/acre (20 - 40 L/acre)
- See label for recommended water volume by crop or use.

SURFACTANT

- Ag-surf®, Agral® 90, Citowett® Plus, Super Spreader Sticker® or Liberate at 2 L per 1,000 L water.
- If mixed with a wild oat herbicide, only the surfactant required by that product is needed.
- Not all tank mixes require surfactant – see label for details.

RAINFAST

- Minimum 2 – 4 hours.

**VIKING**

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HOW VIKING MALOY WORKS:

Systemic group 2 herbicide that is absorbed by the foliage and roots and readily translocated throughout the plant and inhibits cell division. Product rapidly inhibits the growth of susceptible weeds; however, typical symptoms (discolouration) of dying weeds may not be noticeable for 1 to 3 weeks after application depending upon growing conditions and weed susceptibility. Degree of control and duration of effect depends on weed sensitivity, weed size, growing conditions, soil pH and spray coverage.

CROP STAGING

- **Cereal crops:** 2 leaf – flag leaf when used alone
- **Other crops:** see product label
- **Weed stage:** less than 8 cm tall unless otherwise indicated on the product label.

CROP ROTATIONS

Crop rotation options are determined by soil pH, rainfall, the crop to be planted and a minimum interval. Minimum interval is the time from the last application of **VIKING Maloy Herbicide** to date of planting the rotational crop.

For specific crop rotation information please review the **VIKING Maloy Herbicide** product label or visit www.vikingcropproduction.com.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING VIKING Clodinafop Herbicide, VIKING Fenoxaprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Pinoxaden 50 Herbicide, VIKING Clopyralid Herbicide, VIKING Drammen Herbicide, 2,4-D amine or ester, MCPA amine or ester.**
- See label for list of additional tank mix options.

GRAZING RESTRICTIONS

- Livestock may graze treated wheat, barley or forage crops any time after treatment.

PREHARVEST INTERVAL

- No preharvest interval indicated.

STORAGE

- Store product in original container only, away from other pesticides and fertilizer. Store product away from food or feed.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS:

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required rate of **VIKING Maloy Herbicide** and dissolve.
3. Add the required amount of grass weed control tank mix partner.
4. Add any required EC (liquid) formulation products such as MCPA or 2,4-D.
5. Add surfactant if required, then complete filling tank and apply.
6. Product must be applied within 12 hours in order to remain effective.
7. After application is complete, thoroughly remove all traces of **VIKING Maloy Herbicide** from mixing and spray equipment.
8. Note: Product will degrade if left in the sprayer for more than 24 hours.

PERFORMANCE TIPS

Use 50 mesh or larger screens in spraying equipment. Best control will occur when applied between 12°C and 24°C in warm moist growing conditions when weeds are small. Ensure thorough spray coverage of target weeds and use higher water volumes with dense crop canopy and/or large weeds. Typical symptoms (discoloration) of dying weeds may not be noticeable for 1 to 3 weeks, with control of weeds taking 3-4 weeks after application depending upon growing conditions. Degree of control and duration of effect are dependent on weed sensitivity, weed size, crop competition, growing conditions at and following treatment, and spray coverage. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and regrowth may occur. If cold, dry conditions prevail, delay treatment until active weed growth resumes. Application to crops that are stressed by severe weather conditions, frost, low fertility, water-logged soil (soil at or near field capacity), disease or insect damage may result in crop injury. Drought, disease, or insect damage following application may also result in crop injury. Product will degrade if left in the sprayer for more than 24 hours.

PULSE CROP BROAD SPEC
HERBICIDE

VIKING™ METRIBUZIN

Herbicide

Ferocious™, proven control or suppression of 14 broadleaf weeds including group 2 resistant biotypes, early application timing options for optimum yield potential plus pre-seed or in-crop application options for use in pulse and specialty crops.

GROUP 5

REPLACES: Sencor

REGISTERED CROPS AND USES

- Lentils
- Chickpeas
- Field peas
- Processing peas
- Fababeans
- Soybeans
- Barley
- Spring wheat
- Dryland winter wheat
- Potatoes
- Asparagus (established)
- Highbush blueberries (newly planted)
- Carrots
- Narrow-leaved lupin
- Shelterbelts

WEEDS SUPPRESSED*

(post-emergent application in chickpeas and lentils¹):

- Ball mustard
- Common chickweed
- Corn spurry
- Green smartweed
- Hemp-nettle
- Lamb's-quarters
- Stinkweed
- Tartary buckwheat
- Volunteer non-triazine tolerant canola
- Wild mustard

* Controlled in cereals at 111 grams/acre. See product label for weed control by crop and use rate.

¹ Chickpeas and lentils may provide poor competition against weed growth. Under conditions of heavy weed pressure or lush weed growth, **VIKING Metribuzin Herbicide** alone may not provide adequate suppression due to regrowth of some weeds.

ACTIVE INGREDIENT

- Metribuzin 75% wettable granular

APPLICATION RATE AND ACRES TREATED

- **Case:** 64-80 acres (rate dependent)
- See product label for application rates by crop and use.

PACKAGE SIZE

- **Case:** 2 X 5 kg box

WATER VOLUME

- **Preplant incorporated:** 10 US gallons/acre (40L/acre)
- **Post-emergent:**
Cereals - 10 US gallons/acre (40L/acre)
Pulses - 18 US gallons/acre (70 L/acre)

SURFACTANT

- **Post-emergent applications:** None required.
- **Pre-emergent applications:** Under drought conditions, and for improved burndown of small emerged annual weeds, non-ionic surfactant may be added at 0.1% v/v (1L per 100L spray solution)

RAINFAST

- Minimum 6 hours

**VIKING**

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HOW VIKING METRIBUZIN WORKS:

A POST (foliar) PSII Inhibitor/ Membrane disruptor herbicide that is absorbed by leaves and roots and translocates to new growth. Contact and systemic activity leads to inhibition of photosynthesis resulting in weeds turning brown and dying.

CROP STAGING

- **Peas, lentils:** Up to 6" vine length
- **Chickpeas:** Up to 2.5" tall when vines have 1-3 above ground nodes
- **Cereals:** 2-5 leaf stage
- **Weed stage:** Apply when weeds are small, approximately 2 inches in height or diameter.

CROP ROTATIONS

- Do not seed canola the year after application.
- Fall seeded crops may be injured when seeded the same year as preplant or post-emergence applications.
- See label for more details and complete list of sensitive crops.

REGISTERED AND SUPPORTED TANK MIXES*

- **Soybeans** (pre-plant incorporated): S- Metolachlor 960 Herbicide, Treffan® EC (pre-emergent only)
- **Cereals:** 2,4-D Amine, Banvel, MCPA Amine

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Peas, chickpeas, or lentils may be grazed 70 days after treatment.
- Graze cereals 30 days after application.

PREHARVEST INTERVAL

- **Barley, wheat, potatoes:** 60 days
- **Lentils, field peas, chickpeas:** 70 days
- See product label for complete information on pre-harvest interval by crop.

STORAGE

- Store this product away from food or feed. Keep away from children. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, seeds, fertilizers, food, and feed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. Add the required amount of **VIKING Metribuzin Herbicide** and agitate until dissolved.
3. If required, add correct amount of tank mix partners.
4. If required, add correct amount of surfactant.
5. Fill the remainder of the tank with water and apply.
6. If application is stopped prior to completion, resuspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur when applied between 12°C and 24°C in warm moist growing conditions. Using lower than recommended water volumes increases the risk of leaf burn. Allow at least 4 to 5 days between **VIKING Metribuzin Herbicide** application and a grass weed herbicide. Crop must be seeded at least 5 cm. below soil surface. Be aware of soil organic matter levels when applying as special conditions may occur. See label for more details. Crop injury may occur if high temperatures occur within 48 hours of application. Cold, cloudy weather or frost within 3 days of application will also aggravate injury. Typical symptoms (yellowing) generally are usually seen 5-7 days after application with weeds turning brown and dying within 14-16 days. Early application is critical; application past the labelled crop stage can result in severe crop injury. Heavy rain after application may result in severe crop injury. Control will be reduced, or crop injury may occur if plants are stressed due to lack of moisture, excessive moisture, poor fertility, cold temperatures, or other crop stress factors.

CEREAL BROADLEAF HERBICIDE

VIKINGTM
NAVIK

Herbicide

FerociousTM, reliable and proven control of hemp-nettle, redroot pigweed, chickweed, mustard species and many more tough-to-kill broadleaf weeds plus outstanding crop safety, a wide window of application and numerous tank mix options for use in wheat, barley, oats and seedling and established forage grasses.

GROUP 2

REPLACES: Refine[®]

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Winter wheat
- Barley
- Oats
- Seedling and established forage grasses for forage and seed production only

WEEDS CONTROLLED

- Ball mustard
- Chickweed¹
- Common groundsel
- Corn spurry
- Cow cockle
- Flixweed
- Green smartweed
- Hemp-nettle
- Kochia
- Lady's-thumb
- Lamb's quarters
- Narrow-leaved hawk's-beard
- Redroot pigweed
- Russian thistle
- Shepherd's purse
- Stinkweed
- Tartary buckwheat
- Volunteer canola²
- Volunteer sunflower
- Wild buckwheat³
- Wild mustard

WEEDS SUPRESSED

- Canada thistle⁴
- Cleavers² (1-3 whorls)
- Round-leaved mallow⁵
- Scentless chamomile
- Sow thistle⁴
- Stork's-bill
- Toadflax⁶

¹ Emerged plants only. Apply when chickweed is small and actively growing and before canopy close.

² Not including Clearfield[®] tolerant varieties.

³ Apply to actively growing wild buckwheat in the cotyledon to 3 leaf stage. Large plants may regrow after treatment.

⁴ Apply before the bud stage when thistles are less than 15 cm in height and when majority of thistles have emerged and are actively growing.

⁵ Apply to actively growing mallow from 2-6 leaf stage, plants will be stunted but overall populations may not be reduced.

⁶ Apply when weeds are no taller than 15 cm in height. A control program includes both chemical application and tillage.

ACTIVE INGREDIENTS

- Thifensulfuron methyl 50% + Tribenuron methyl 25% wettable granule (WG)

APPLICATION RATE AND
ACRES TREATED

- **Application rate:** 8 grams/acre
- **Acres Treated:** 40 acres/bottle

PACKAGE SIZE

- **Bottle:** 320 grams

WATER VOLUME

- **Ground:** Minimum 5 US gallons/acre (20 L/acre)
- **Aerial:** Minimum 2.5 US gallons/acre (10 L/acre)

SURFACTANT

- If used alone: Agral[®] 90 or AgSurf[®] at 2 L per 1,000 L water.
- If mixed with a wild oat herbicide, only the surfactant required by that product is needed.

RAINFAST

- Minimum 1 hour



VIKING

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HOW VIKING NAVIK WORKS:

Systemic herbicide that is absorbed by leaves and roots and moves rapidly to the growing points of the plant. Growth of susceptible plants stops soon after application, symptoms include discoloration (yellowing, reddening, and orange), with control taking up to 2-4 weeks.

CROP STAGING

- **Crop stage:**
Cereals: 2 leaf to flag leaf, prior to head emergence.
Forage grasses: post-emergence
- **Weed stage:** less than 10 cm in height or diameter

CROP ROTATIONS

- All major crops can be grown the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Clodinafop Herbicide, VIKING Drammen Herbicide, VIKING Fenoxaprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Kalmar F2 Herbicide, VIKING Pinoxaden 50 Herbicide, VIKING 2,4-D Ester 700 Herbicide, VIKING MPCA Ester 600 Herbicide, Simplicity™, Traxos®, Varro®.**

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Treated crop may be grazed or fed to livestock 7 days after application.

PREHARVEST INTERVAL

- No preharvest interval indicated.

STORAGE

- Product may be frozen. Store this product away from food or feed. Store product in original container only, away from other pesticides, fertilizer, food or feed. Not for use or storage in or around the home.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required rate of **VIKING Navik Herbicide** and dissolve.
3. Add the required amount of grass weed control tank mix partner.
4. Add any required EC (liquid) formulation products such as MCPA.
5. Add surfactant if required, then complete filling tank and apply.
6. Product must be applied within 12 hours in order to remain effective.
7. Note: Product will degrade if left in the sprayer for more than 24 hours.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Use 50 mesh or larger screens in spraying equipment. Best control will occur when applied between 12°C and 24°C in warm moist growing conditions when weeds are small. Ensure thorough spray coverage of target weeds and use higher water volumes with dense crop canopy and/or large weeds. Typical symptoms (discoloration) of dying weeds may not be noticeable for 1 to 3 weeks, with control of weeds taking 3-4 weeks after application depending upon growing conditions. Degree of control and duration of effect are dependent on weed sensitivity, weed size, crop competition, growing conditions at and following treatment, and spray coverage. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and regrowth may occur. Application to crops that are stressed by severe weather conditions, frost, low fertility, water-logged soil (soil at or near field capacity), disease or insect damage may result in crop injury. Drought, disease, or insect damage following application may also result in crop injury. Product will degrade if left in the sprayer for more than 24 hours.

PULSE CROP BROAD SPEC
HERBICIDE**VIKING™**
SKIEN

Herbicide

Ferocious™, proven control or suppression of 15 broadleaf weeds including control of redroot pigweed, stinkweed, volunteer canola and wild mustard for use in field peas.

GROUP 2

REPLACES: Odyssey®

REGISTERED CROPS AND USES

- Field peas

WEEDS CONTROLLED

(at 17.3 grams/acre)

- | | |
|--|--|
| <ul style="list-style-type: none"> • Barnyard grass • Chickweed • Cleavers • Flixweed • Green foxtail • Green smartweed • Persian dandel • Redroot pigweed • Shepherd's purse | <ul style="list-style-type: none"> • Stinkweed • Stork's bill • Volunteer barley • Volunteer canola¹ • Volunteer tame mustard • Volunteer tame oats • Volunteer wheat • Wild mustard¹ • Wild oats |
|--|--|

WEEDS SUPRESSED

- | | |
|--|--|
| <ul style="list-style-type: none"> • Hemp-nettle • Lamb's-quarters | <ul style="list-style-type: none"> • Wild buckwheat |
|--|--|

¹ Non-Clearfield® canola only.

ACTIVE INGREDIENTS

- Imazamox 35% + Imazethapyr 35% water dispersible granules (WDG)

APPLICATION RATE AND
ACRES TREATED

- **Application Rate:** 17.3 grams/acre
- **Acres Treated:** 40 acres/case

PACKAGE SIZE

- **Case:** 692 grams (8 x 86.5 g water-soluble bags)

WATER VOLUME

- 10 US gallons/acre (40 L/acre)

SURFACTANT

- **VIKING PHC Adjuvant** at 5 L per 1,000 L of water

RAINFEST

- Minimum 3 hours



HOW VIKING SKIEN WORKS:

Absorbed by foliage and roots, disrupts plant metabolism via inhibition of the ALS enzyme, which causes growth to stop. Growth of susceptible plants stops soon after application, symptoms include discoloration (yellowing, browning), with complete control taking up to 2-4 weeks.

CROP STAGING

- **Crop stage:** 1 to 6 true leaf stage
- **Weed stage:** Up to the 4 leaf stage

CROP ROTATIONS

- **1 year after application:** Barley, chickpeas, Clearfield® canola, Clearfield lentils, durum wheat, field peas, spring wheat, tame oats.
- Conduct a field bioassay the year before growing any crop other than those listed above.
- Refer to label for area specific re-cropping restrictions.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Clethodim Herbicide, VIKING Quizalofop Herbicide**

GRAZING RESTRICTIONS

- Treated fields can be grazed or cut for feed 30 days after application.
- Do not harvest forage or cut hay for forage.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions for Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Use 50 mesh or coarser filter screens.
2. Fill the spray tank 1/2 full of clean water and start agitation.
3. Add the required amount of **VIKING Skien Herbicide** and agitate until product is fully dissolved.
4. If required, add correct amount of tank mix partners.
5. Add the required amount of **VIKING PHC Adjuvant**.
6. Fill the remainder of the tank with water and apply.
7. If application is paused prior to completion, agitate and resuspend spray solution prior to re-commencing spraying.

Always read and follow all label precautions and directions.

PREHARVEST INTERVAL

- Treated crops can be harvested 60 days after application.

STORAGE

- Store this product away from food or feed. Keep from freezing. Keep unused water-soluble bags in resealed original container, and keep packages dry at all times.

PERFORMANCE TIPS

Best control will occur when applied between 12°C and 24°C during warm moist growing conditions when weeds are small and actively growing. Typical symptoms (discoloration at the growing point) may not be noticeable for several days to 2 weeks depending on growing conditions. For optimum control weeds must be emerged but less than 4 leaf stage for optimum control. Use higher water volumes for dense weed populations and thick crop canopies. Do not apply if temperatures of +5°C or lower are forecast within 3 days of application. Application just before or after cold temperatures can result in crop injury or reduced weed control. Control will be reduced, or crop injury may occur if plants are stressed by lack of moisture, excessive moisture, poor fertility, cold temperatures or other crop stress factors. **VIKING Skien Herbicide** can be persistent in soil. Drought, extremes in soil pH and excessive cold may result in an increased potential for injury to succeeding crops. Do not grow LibertyLink® or Roundup Ready® canola the year after application of VIKING Skien Herbicide. Do not apply **VIKING Skien Herbicide** more than once per year.

VIKING™ STAVANGER

Herbicide

Ferocious™, and superior control of cleavers (including group 2 resistant biotypes), Canada thistle, kochia (including group 2 & 9 resistant biotypes), and 27 other tough-to-kill weeds (high rate) plus a wide window of application, excellent crop safety and multiple tank mix options for use in spring wheat, durum wheat, and barley.

GROUP 4

REPLACES: Prestige™

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley

WEEDS CONTROLLED

Low Rate (27 acres/case)

- Burdock
- Canada thistle¹ (low infestations)
- Cleavers² (1-4 whorls)
- Cocklebur
- Field horsetail⁴
- Flixweed (spring rosettes 2-4 leaf)
- Kochia³
- Lamb's-quarters
- Plantain⁴
- Prickly lettuce
- Ragweed
- Shepherd's-purse⁵
- Stinkweed⁵
- Sunflower (annual and volunteer)
- Vetch
- Volunteer flax (1-12 cm)
- Wild mustard
- Wild radish

High Rate (20 acres/case) (includes weeds controlled at the low rate)

- Canada thistle¹ (medium-high infestations)
- Common groundsel
- Dandelion⁵
- Redroot pigweed
- Round-leaved mallow (1-6 leaf)
- Russian pigweed
- Scentless chamomile (2-4 leaf)
- Smartweed
- Sow thistle (annual)
- Sow thistle⁴ (perennial)
- Stork's-bill (1-8 leaf)
- Tartary buckwheat
- Volunteer canola
- Wild buckwheat

WEEDS SUPRESSED

Low Rate

- Stork's-bill (1-8 leaf)

High Rate

- Chickweed² (up to 8 cm)

¹ Season long control with some regrowth in the fall (top growth control).

² Including group 2 resistant biotypes.

³ Including group 2 and 9 resistant biotypes

⁴ Top growth control

⁵ Spring rosettes only

ACTIVE INGREDIENTS

- Fluroxypyr 180 g/L emulsifiable concentrate (EC)
- Clopyralid 50 g/L + MCPA Ester 280 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED:

- **Rates:**
 - **Low:** 240 mL/ac VIKING Fluroxypyr Herbicide + 600 mL/ac VIKING Drammen Herbicide
 - **High:** 320 mL/ac VIKING Fluroxypyr Herbicide + 800 mL/ac VIKING Drammen Herbicide
- **Acres Treated:**
 - **Case:** 20-27 acre.
 - **Bulk:** 711-960 acres.

PACKAGE SIZE:

- **Case:** 6.4 L jug VIKING Fluroxypyr Herbicide + 2 X 8 L jugs VIKING Drammen Herbicide
- **Bulk:** 230 L tote VIKING Fluroxypyr Herbicide + 576 L tote VIKING Drammen Herbicide.

WATER VOLUME

- Minimum 10 US gallons/acre (40 L/acre)

SURFACTANT

- Not required

RAINFAST

- Minimum 4 hours


VIKING

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HOW VIKING STAVANGER WORKS:

Absorbed through roots and leaves and translocated in the plant through phloem and xylem, the components work within the plant to control exposed and underground plant tissue. The herbicide mimics naturally occurring plant hormones and controls weeds by disrupting normal plant growth patterns. Susceptible plants stop growing almost immediately, with control taking 2-4 weeks depending on growing conditions. Symptoms including twisting of stems, swollen nodes and tissue discoloration.

CROP STAGING

- **Crop stage:** 3 leaf – flag leaf
- **Weed stage:** 1–6 leaf stage (high rate) or 2–4 leaf stage (low rate)

CROP ROTATIONS

- 1 year after application: wheat barley, canola, rye, sugar beets, flax, mustard, oats, peas[†] or summerfallow.
- Do not grow crops other than those listed for at least 2 years.

[†]For pea rotation, rainfall from June 1 to August 31 in the year of application must be greater than 140 mm (5.5 inches) and annual rainfall must be greater than 175 mm (6.9 inches).

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Clodinafop Herbicide, VIKING Fenoxaprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Pinoxaden 50 Herbicide, Liquid Achieve™, Simplicity™^Δ, Traxos®**

^ΔFor Simplicity Herbicide tank mix use the low rate of **VIKING Stavanger Herbicide** only.

GRAZING RESTRICTIONS

- Livestock may be grazed on treated areas 7 days after application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.

PREHARVEST INTERVAL

- Allow 7 days after application before cutting hay or harvesting silage.
- Mature crop can be harvested 60 days after application.

STORAGE

- Store this product away from food or feed. Do not freeze. If product is frozen, bring to room temperature and agitate before use.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and begin agitation.
2. If tank mixing, add the required amount of grassy weed control tank mix partner.
3. Add the required amount of **VIKING Fluroxypyr Herbicide**.
4. Add the required amount of **VIKING Drammen Herbicide**.
5. Add surfactant if required, then complete filling of spray tank, and apply.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best control will occur with temperatures between 12°C and 24°C in warm moist conditions when weeds are small and actively growing. The best thistle control will occur when thistles are in the rosette to pre-bud stage. Thistles that are not emerged or are already in the bud stage will not be controlled. Use higher rate and higher water volumes with heavier weed pressure, larger weeds and thicker crop canopy. Typical symptoms (twisting of the stems) of dying weeds may not be visible for up to 2 weeks after application, depending on growing conditions. Control of weeds may take 3-4 weeks. Wet foliage at the time of application may reduce control. Only chickweed that is emerged will be controlled; chickweed that emerges after application will not be controlled. When weeds are stressed due to drought, flooding or prolonged hot or cool temperatures (less than 8°C or more than 27°C), control can be reduced or delayed since weeds are not actively growing. Weed escapes may occur under prolonged stress conditions or low fertility. Do not make applications to weeds stressed longer than 20 days due to lack of moisture as unsatisfactory control can result. Very dry soil conditions following application can result in a risk of injury to field peas, beans, clover, alfalfa or other legumes grown in rotation. Do not seed lentils on treated fields for at least 2 years.

VIKING™ TRYCKA

Herbicide

Ferocious™, proven, and effective, with the highest registered rate of fluroxypyr and 3 actives with 2 modes of action for superior control of cleavers, kochia (including group 2 & 9 resistant biotypes), wild buckwheat, volunteer canola (including all HT varieties), and control or suppression of 26 additional annual and perennial broadleaf weeds, no re-cropping restrictions, excellent crop safety and a wide window of application for use in spring wheat, durum wheat, and barley.

GROUP 4 & 6

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- Spring wheat
- Durum wheat
- Barley

WEEDS CONTROLLED

Seedling to 4-leaf stage

- American nightshade
- Ball mustard
- Bluebur
- Cleavers⁵ (up to 4 whorl stage)
- Cocklebur
- Cow cockle¹
- Flixweed
- Green smartweed
- Lady's-thumb
- Night flowering catchfly
- Pale smartweed
- Redroot pigweed
- Russian thistle²
- Scentless chamomile³
- Shepherd's-purse
- Velvetleaf⁴
- Volunteer canola
- Volunteer flax (1-12 cm)
- Volunteer sunflower

Seedling 6-leaf stage

- Wild tomato
- Round-leaved mallow (1-6 leaf)

Seedling 8-leaf stage

- Common buckwheat
- Common groundsel
- Common ragweed
- Kochia⁶ (2-8 leaf)
- Lamb's-quarters
- Stinkweed
- Tartary buckwheat
- Wild buckwheat
- Wild mustard
- Wormseed mustard

Top Growth Control

- Canada thistle
- Stork's-bill

WEEDS SUPRESSED

- Chickweed⁵
- Hemp-nettle
- Stork's-bill

ACTIVE INGREDIENTS

- Bromoxynil 280 g/L + MCPA Ester 280 g/L emulifiable concentrate (EC)
- Fluroxypyr 180 g/L emulifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED:

- **Application rate:** VIKING Hamar Herbicide 400 mL/acre + VIKING Fluroxypyr Herbicide 320 mL/acre
- **Acres treated:**
Case: 40 acres/case
Bulk: 960 acres

PACKAGE SIZE:

- **Case:** 2 x 8 L jugs VIKING Hamar Herbicide + 1 X 12.8 L jug VIKING Fluroxypyr Herbicide
- **Bulk:** 384 L tote VIKING Hamar Herbicide + 307 L tote VIKING Fluroxypyr Herbicide

WATER VOLUME:

- Minimum 10 US gallons./acre (40 L/acre)

SURFACTANT:

- None required.

RAINFAST:

- Minimum 1 hour

¹ In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled.

² Spray before plants are 5 cm high.

³ Spring annuals only.

⁴ Spray before plants are 8 cm high.

⁵ Including group 2 resistant biotypes.

⁶ Including group 2 and group 9 resistant biotypes.


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HOW VIKING TRYCKA WORKS:

This product contains three active ingredients, a contact herbicide and 2 systemic herbicides. The bromoxynil (contact) active is a contact type herbicide and inhibits photosynthesis and plant respiration. The MCPA and fluroxypyr (systemic) actives are primarily absorbed through leaves and are readily translocated in the plant with speed of control dependent on application and growing conditions. Weeds stop growing shortly after application, with small burnt spots appearing on the leaves of susceptible weeds within hours; death takes up to 2 -3 weeks or longer.

CROP STAGING

- **Crop stage:** 2 leaf - early flag leaf
- **Weed stage:** See "weeds controlled" section.

CROP ROTATIONS:

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- **Spring wheat:** **VIKING Clodinafop Herbicide**, **VIKING Fenoxoprop Herbicide**, **VIKING Flucarbazone Herbicide**, **VIKING Pinoxaden 50 Herbicide**, Liquid Achieve™, Simplicity™, Varro®

GRAZING RESTRICTIONS:

- Livestock may be grazed on fields 30 days after application.
- Withdraw meat animals from treated areas at least 3 days before slaughter.

PREHARVEST INTERVAL:

- Harvest forage or cut hay 30 days after application.
- Mature crop may be harvested 60 days after application.

STORAGE:

- Store this product away from food or feed. Product may be frozen; if product becomes frozen, gently warm contents and agitate container

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of clean water and start agitation.
2. If required, add the correct amount of any dry formulation products.
3. If required, add the correct amount of grassy weed tank mix partner.
4. Add the required amount of **VIKING Hamar Herbicide**.
5. Add the required amount of **VIKING Fluroxypyr Herbicide**.
6. Add any required surfactant.
7. Complete filling of sprayer and apply.
8. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Best results will be achieved between 12°C and 24°C in warm moist growing conditions when weeds are small and actively growing. Good spray coverage and growing conditions are essential for optimum performance. Use higher water volumes for thicker crop canopy or heavier weed pressure. Symptoms of control (discoloration, twisting) will be visible from several days to 2 weeks after application, depending on growing conditions. Control of weeds may take 3-4 weeks after application. Reduced activity will occur when temperatures are below 8°C or above 27°C. Frost before application (3 days) or shortly after (3 days) may reduce weed control and crop tolerance. Weed control may be reduced during stress conditions, e.g. drought, excessive moisture, poor fertility, heat or cold stress, or if weeds have initiated flowering, or if heavy infestations exist.

FUNGICIDES



FUNGICIDE	Page	Durum Wheat	Winter Wheat	Spring Wheat	Oats	Barley	Rye	Alfalfa	Canola	Flax	Dry Beans	Field Peas	Lentils	Chickpeas	Corn	Soybean	Potatoes	* See label for complete list
VIKING Azoxystrobin Fungicide	103	X	X	X	X	X			X			X	X	X	X	X	X	X
VIKING Drobak Fungicide	105	X	X	X		X												
NEW VIKING Kannus Fungicide	107								X				X	X		X		X
VIKING Propiconazole Fungicide	109	X	X	X	X	X			X		X	X	X	X	X	X		X
NEW VIKING Prothioconazole Fungicide	111	X	X	X	X	X				X			X	X	X	X		X
VIKING Pyraclostrobin Fungicide	113	X	X	X		X	X	X			X	X	X	X	X	X	X	X
VIKING Tebuconazole Fungicide	115	X	X	X	X	X												
VIKING Tromso Fungicide	117	X	X	X		X												
NEW VIKING Vaasa Fungicide	119												X	X		X		X



VIKINGTM

FUNGICIDES

VIKING™ AZOXYSTROBIN

Fungicide

Ferocious™, proven and affordable control of key diseases through protective and systemic activity that improves plant health and delivers effective disease control for use in potatoes, pulse crops, cereals, canola, and many other crops.

GROUP 11

REPLACES: Quadris®

REGISTERED CROPS AND USES

- Canola
- Potatoes
- Soybeans
- Field pea
- Lentils
- Chickpeas
- Cereals
- Legume vegetables
- Seed corn
- Tomatoes
- Ginseng
- Hazelnuts
- Filberts
- Sugar beets
- Coriander
- Ferns of asparagus
- Spinach
- Sweet and field corn
- Carrots
- Radish
- Daikon
- Horseradish
- Rutabaga
- Turnip
- Garden beets
- Ground cherries

DISEASES CONTROLLED

Canola:

Sclerotinia stem rot:	400 mL/acre
Blackleg:	200 mL/acre
Alternaria Black Spot:	Suppressed at 280-400 mL/ac when applied at the early bloom stage (prior to 30% flower) Controlled at 200 mL/ac when applied at the pod stage (90% petal fall).

Soybeans:

Asian soybean rust, powdery mildew, Cercospora leaf spot, Ascochyta blight:	200 mL/acre
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Potatoes:

Early blight, black dot:	200-320 mL/acre Late blight: 320 mL/acre
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Potatoes (in furrow application):

Silver scurf, Rhizoctonia stem canker, Rhizoctonia stolon canker, black scurf:	4-6 mL product/100 mL row
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Seed corn:

Rust (Puccinia sorghi):	170 mL/acre
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Lentils:

Anthracoze, ascochyta blight:	200 mL/acre
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Field peas:

Mycosphaerella blight, powdery mildew, anthracnose, ascochyta blight:	200 mL/acre
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Dry beans:

Anthracoze, ascochyta blight:	200 mL/acre
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ACTIVE INGREDIENT

- Azoxystrobin 250 g/L suspension concentrate (SC)

APPLICATION RATE AND ACRES TREATED

- Application rate and acres treated depends on crop and disease. See Diseases Controlled section or product label for application rate by crop and disease.
- Where there an application rate range, use higher application rates for higher disease pressure.

PACKAGE SIZE

- **Case:** 2 x 8 L jugs

WATER VOLUME*

- See label for crop and disease specific recommended water volumes.
- **Ground:** minimum 10 US gallons/acre (40 L/ac), except potatoes in furrow (20-56 L/ac), seed corn (80 L/ac)
- **Aerial:** minimum 5 US gallons/acre (20 L/acre). (Do not apply to seed corn or potato by air.
- Use higher water volumes for thicker crop canopies.

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour



HOW VIKING AZOXYSTROBIN WORKS:

The active ingredient azoxystrobin is a methoxyacrylate compound (strobilurin) with broad spectrum contact and systemic activity. The product is a broad spectrum fungicide for use as a preventative and curative fungicide.

CROP STAGING

- **Canola:**
Sclerotinia or alternaria black spot: apply at early bloom (prior to 30% flower)
Blackleg: Apply at 2-6 leaf stage
- **Soybean:** R1 to R3 developmental stage, or when there is 5% disease level in the field
- **Potatoes:** Prior to disease establishment. For soilborne diseases, apply in furrow.
- **Corn:** At the first sign of disease
- **Pea, lentils, dry beans:** Apply before disease is established and no later than onset of flowering.

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **Cereals:** VIKING Propiconazole Fungicide
- **Soybeans:** VIKING Propiconazole Fungicide, Matador® 120EC
- **Potato:** Bravo® 500, Ridomil Gold® 480 SL or Ridomil Gold® 480 EC, Actara® 240SC.
- **Corn:** Matador® 120EC
- See label for additional diseases and insects controlled when tank mixed.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of any WG or DF formulation tank mix partner if needed.
3. Add required amount of **VIKING Azoxystrobin Fungicide** to the tank.
4. Add any EC formulation tank mix partners to the tank if needed, finish filling the tank with water, and apply product.
5. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.
6. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

GRAZING RESTRICTIONS

- Do not feed alfalfa hay or forage to livestock. All other crops can be grazed or fed to livestock.
- Animals may be grazed on treated crops 6 days after application.

PREHARVEST INTERVAL

- **Canola:** 30 days after application
- **Corn:** 7 days after application
- **Soybeans, dry beans, legume vegetables:** 15 days after application
- See label for complete list of preharvest intervals by crop.

STORAGE

- To prevent contamination, store this product away from food or feed. Do not freeze.

PERFORMANCE TIPS

Consult the product label for uses, application rates and water volumes for all crops and diseases. **VIKING Azoxystrobin Fungicide** is preventative in nature. The best disease control will be achieved when applied prior to disease establishment. Good coverage is essential for effective disease control; always use higher water volumes with denser crop canopies. Use **VIKING Azoxystrobin Fungicide** as part of an integrated disease management strategy including resistant crop varieties, crop rotation, and plant residue management. Fungicide rotation is critical to help prevent fungicide resistance. Do not apply more than 2 applications of **VIKING Azoxystrobin Fungicide** per season. If additional fungicide applications are required, switch to a fungicide with a different mode of action.

VIKING™ DROBAK

Fungicide

Ferocious™, proven disease control with multiple modes of action for cost-effective leaf disease control, resistance management, preventative and curative activity, a wide window of application, tank mixability with foliars, and improvement in overall plant health for use in wheat and barley.

GROUP 3 & 11

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- Wheat
- Barley

DISEASES CONTROLLED

Spring wheat, winter wheat, durum wheat

- Rusts (leaf, stem, stripe)
- Tan spot
- Septoria leaf blotch

Barley

- Net blotch
- Spot blotch
- Scald
- Rusts (leaf, stem, stripe)
- Septoria leaf blotch
- Powdery mildew

ACTIVE INGREDIENTS

- Pyraclostrobin 250 g/L emulsifiable concentrate (EC)
- Tebuconazole 250 g/L emulsion in water (EW)

APPLICATION RATE AND ACRES TREATED

- **Rates:** 120 mL/acre **VIKING Pyraclostrobin Fungicide** + 150 mL/acre **VIKING Tebuconazole Fungicide**
- **Acres treated:**
 - **Case:** 80 acres
 - **Bulk:** 640 acres

PACKAGE SIZE

- **Case:** 12 L jug **VIKING Tebuconazole Fungicide** + 9.6 L jug **VIKING Pyraclostrobin Fungicide**
- **Bulk:** 96 L tote **VIKING Tebuconazole Fungicide** + 77 L tote **VIKING Pyraclostrobin Fungicide**

WATER VOLUME

- **Ground:** Minimum 10 US gallons/acre (40L/acre)
- **Aerial:** Minimum 5 US gallons/acre (20L/acre)
- Use higher water volumes for thicker crop canopies.

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour





HOW VIKING DROBAK WORKS:

Broad-spectrum fungicide for leaf disease control in wheat and barley with both preventative and curative properties. This product contains two active ingredients; tebuconazole is a triazole demethylation inhibitor (DMI) fungicide with systemic broad-spectrum activity, and pyraclostrobin is a strobilurin fungicide with broad spectrum contact and systemic activity. When the combination of the two actives is applied to the top surface of the leaf it binds tightly in the waxy cuticle and moves to the lower leaf surface where it provides dual-sided protection against disease entry due to systemic activity within the leaf. It has a protective effect because it inhibits spore germination and a curative effect due to the inhibition of the mycelial growth and sporulation of the fungus on the leaf surface.

APPLICATION TIMING:

- Apply at the first sign or very early stage of disease, especially if weather conditions are conducive to disease.

CROP ROTATIONS:

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- None

GRAZING RESTRICTIONS:

- Crops may be grazed or fed to livestock 6 days after application.

PREHARVEST INTERVAL:

- Mature crop may be harvested 36 days after application.

STORAGE:

- Store this product away from food or feed. Store in a cool, dry place. Do not freeze. Store in original container and out of the reach of children, preferably in a locked storage area.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of any tank mix partners, if required.
3. Add the required amount of **VIKING Pyraclostrobin Fungicide**.
4. Add required amount of **VIKING Tebuconazole Fungicide**, complete filling the tank, and apply.
5. If application is stopped prior to completion, resuspend spray solution by full agitation prior to commencing spraying again.
6. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Always Consult provincial disease risk maps to understand risk for your area before application. **VIKING Drobak Fungicide** has preventative and curative properties and works best if applied early at the onset of disease. Good spray coverage is critical for effective disease control; use higher water volumes with dense crop canopies. Apply this product only once per crop season. If disease persists or weather conditions are favourable to disease, apply another fungicide product with a different mode of action 10-14 days later. Avoid applying products consecutively containing the same fungicide groups to reduce the risk of resistant forms of disease. For best disease control, use **VIKING Drobak Fungicide** as part of an integrated disease management approach including resistant seed varieties, crop rotation, and other management practices. Do not apply **VIKING Drobak Fungicide** when the crop is flowering. Applications of fungicides from the strobi class are thought to increase the risk of fusarium head blight if applied during flowering.

VIKING™ KANNUS

Fungicide

Ferocious™, effective, and proven control of sclerotinia stem rot in canola and many other diseases in multiple crops with both systemic and contact activity, protective and curative action, multiple modes of action for resistance management, and early application timing for maximum yield potential for use in canola, chickpea, lentil and soybean.

GROUP 3 & 11

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- Canola
- Chickpea
- Soybean
- Lentil

DISEASES CONTROLLED

See product label for a complete list of registered crops and diseases controlled.

Canola

Sclerotinia stem rot
Alternaria black spot
Virulent blackleg

Lentil

Ascochyta blight
Anthracnose
white mold

Soybean

Frogeye leaf spot
Asian soybean rust

Chickpea:

Aschochyta blight

ACTIVE INGREDIENT

- Azoxystrobin 250 g/L suspension concentrate (SC)
- Prothioconazole 480 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Application rate:** 202 mL/acre **VIKING Azoxystrobin Fungicide** + 128 mL/acre **VIKING Prothioconazole Fungicide**

PACKAGE SIZE

- **Case:** 8.1 L jug **VIKING Azoxystrobin Fungicide** + 5.1 L jug **VIKING Prothioconazole Fungicide**
- **Acres treated:** 40 acres/case

WATER VOLUME

- **Ground:** Minimum 10 US gallons/acre (40 L/acre)
- **Aerial:** Minimum 5 US gallons/acre (20L/acre)
- Use higher water volumes for thicker crop canopies.

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour





HOW VIKING KANNUS WORKS:

VIKING Kannus Fungicide is a broad spectrum, systemic fungicide with two modes of action and both contact and systemic activity with excellent systemic movement in the plant for the control or suppression of listed diseases on registered crops.

APPLICATION TIMING

- **Canola:**
 - **Sclerotinia stem rot:** early bloom stage
 - **Alternaria black spot:** 2-6 leaf stage
 - **Virulent blackleg:** 2-6 leaf stage
- **Lentil, chickpea:** Before disease is established and no later than the onset of flowering.
- **Soybean:** R1 to R3 developmental stage

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- None

GRAZING RESTRICTIONS

- Do not feed hay or threshings or allow livestock to graze in treated areas

PREHARVEST INTERVAL

- **Canola:** 36 days
- **Soybean:** 20 days
- **Lentil, chickpea:** 15 days
- See product label for complete list of pre-harvest interval for all labelled crops.

STORAGE

- Store this product away from food or feed in a cool, dry, locked, well-ventilated area without a floor drain. Do not freeze.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of **VIKING Azoxystrobin Fungicide**.
3. Add the required amount of **VIKING Prothioconazole Fungicide** and finish filling the tank with water.
4. Maintain agitation throughout mixing and spraying.
5. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.
6. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

1. Consult the product labels for uses, application rates and water volumes for all crops and diseases. Good coverage is critical for effective disease control – use higher water volumes for dense canopies and higher disease pressure. Good coverage is essential for effective disease control. Use higher water volumes for thicker crop canopies or higher disease pressure. **VIKING Kannus Fungicide** will work best if applied prior to, or at the onset of disease. Use **VIKING Kannus Fungicide** as part of an integrated disease management strategy including resistant crop varieties, crop rotation, and plant residue management. Rotate fungicide groups whenever possible to prevent resistance. Do not apply **VIKING Kannus Fungicide** more than twice per crop season.

VIKING™ PROPICONAZOLE

Fungicide

Ferocious™, proven and affordable control of key diseases with preventative and systemic fungicide activity plus tank mix options with herbicides, insecticides, and foliar fertilizers for use in many different crops.

GROUP 3

REPLACES: Tilt®

REGISTERED CROPS AND USES

- Spring wheat
- Winter wheat
- Durum wheat
- Barley
- Oats
- Canary seed
- Canola
- Corn
- Dry beans
- Lentils
- Field peas
- Soybeans
- Timothy
- Cranberries
- Kentucky bluegrass (seed production)
- Blueberries (low and high bush)
- Rutabagas
- Saskatoon berry
- Stone fruit
- Plums
- Sour cherries
- Western red cedar
- Asparagus
- Strawberries
- Chickpeas

DISEASES CONTROLLED

Wheat

Septoria leaf spot and glume blotch, powdery mildew, leaf and stem rust, tan spot, stripe rust 200 mL/acre

Barley

Net blotch, spot blotch, scald, powdery mildew, septoria leaf spot, leaf and stem rust 200 mL/acre

Oats

Septoria leaf blotch, crown rust 200 mL/acre

Canary seed

Septoria leaf mottle 200 mL/acre

Timothy

Purple eyespot 200 mL/acre

Canola

Blackleg 200 mL/acre

Corn

Rusts, eye spot, grey leaf spot 200 mL/acre

Northern corn leaf blight, Southern corn leaf blight, helminthosporium leaf spot 100-200 mL/acre

Soybeans

Asian (soybean) rust 200-300 mL/acre

Powdery mildew, cercospora leaf spot 200 mL/acre

Dry beans, lentils, field pea

Asian (soybean) rust 200-300 mL/acre

Powdery mildew 200 mL/acre

ACTIVE INGREDIENT

- Propiconazole 250 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- Application rate and acres treated depends on crop and disease. See Diseases Controlled section or product label for application rate by crop and disease.

PACKAGE SIZE

- **Case:** 2 x 8.1 L jugs (acres treated depends on application rate)
- **Bulk:** 97 Litre drum

WATER VOLUME

- **Ground:** Minimum 20 US gallons/acre (80 L/acre)
- **Aerial:** Minimum 4 US gallons/acre (16 L/acre)
- User higher water volumes with thicker crop canopies

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour

* use higher rates when conditions are conducive to heavy disease pressure.



VIKING

vikingcropproduction.com



HOW VIKING PROPICONAZOLE WORKS:

The active ingredient propiconazole is a triazole fungicide with broad spectrum systemic activity. After application the product is transported upwards in plants. It has both preventative and curative activity, with length of control varying from 3-4 weeks depending on disease, crop, and environmental conditions.

CROP STAGING

- Apply product at the first sign of disease. A second application at 14 days interval may be needed if conditions persist.

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Clodinafop Herbicide, VIKING Fenoxaprop Herbicide, VIKING Flucarbazone Herbicide, VIKING Bodo Herbicide, VIKING Brevik Herbicide, VIKING Clopyralid Herbicide, VIKING Clethodim Herbicide, VIKING Drammen Herbicide, VIKING 540 Glyphosate Herbicide, VIKING Glufosinate 150 Herbicide, VIKING Glufosinate 200 Herbicide, VIKING Hamar Herbicide, VIKING Lidingo Herbicide, VIKING Navik Herbicide, VIKING Pinoxaden 50 Herbicide, VIKING Quizalofop Herbicide, VIKING Stavanger Herbicide, VIKING 2,4-D Ester 700 Herbicide, VIKING MPCA Ester 600 Herbicide, VIKING Azoxystrobin Fungicide, VIKING Rauma Insecticide, Axia[®], Matador[®]**

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- Animals may be grazed on treated crops three days after application..

PREHARVEST INTERVAL

- **Wheat, barley, oats:** 45 days
- **Canola:** 60 days
- **Corn, timothy:** 14 days
- **Soybeans, peas, lentils, dry beans:** 30 days
- See product label for complete list of preharvest intervals by crop

STORAGE

- To prevent contamination, store this product away from food or feed. Do not freeze.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of any tank mix partners, if required.
3. Add required amount of **VIKING Propiconazole Fungicide** to the tank, complete filling the tank, and apply.
4. If application is stopped prior to completion, resuspend spray solution by full agitation prior to commencing spraying again.
5. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Consult the product label for uses, application rates and water volumes for all crops and diseases. Good coverage is critical for effective disease control. Use higher water volumes with denser crop canopies; reduction in water volume can reduce control. **VIKING Propiconazole Fungicide** is preventative in nature; the best disease control will be achieved when applied prior to disease establishment. **VIKING Propiconazole Fungicide** lasts about three weeks in the plant; if conditions favourable to disease continue after this length of time, another application will be necessary to maintain control. Use **VIKING Propiconazole Fungicide** as part of an integrated disease management strategy, including resistant crop varieties, crop rotation, and plant residue management. Rotate fungicide groups whenever possible to prevent resistance. Do not exceed 2 applications of products containing propiconazole per season.

VIKING™ PROTHIOCONAZOLE

Fungicide

Ferocious™, proven and effective control of sclerotinia stem rot and many different diseases in other crops plus systemic activity, pre and post infection activity on multiple diseases, high concentration formulation for efficient application, and bulk packaging options for use in many different crops.

GROUP 3

REPLACES: Proline®

REGISTERED CROPS AND USES

- Canola
- Wheat (spring, durum and winter)
- Barley
- Oat
- Flax
- Chickpeas
- Lentil
- Soybean
- Corn
- Sunflower
- See the product label for a complete list of registered crops.

DISEASES CONTROLLED

Canola		Lentils Control:	
Sclerotinia stem rot	128–149 mL/ac	Ascochyta blight, white mold	128–170 mL/ac
Wheat		Lentils	
Tan spot, leaf rust, speckled leaf blotch	85–128 mL/ac	Anthracnose (suppression)	130–170 mL/ac
Fusarium (suppression only)	128 – 170 mL/ac	Grey mold (suppression)	170 mL/ac
Barley		Soybeans	
Net blotch, scald, spot blotch	85–128 mL/ac	Asian soybean rust, frogeye leaf spot	85 mL/acre
Fusarium (suppression only)	128 – 170 mL/ac	Corn	
Oats		Rusts, eyespot, northern blight	170 mL/acre
Crown rust	128 mL/ac	Grey leaf spot	170 mL/acre
Chickpea		Fusarium, gibberella ear rots (suppression)	170 mL/acre
Ascochyta blight	128 – 170 mL/ac		
Grey mold (suppression)	170 mL/acre		

* use higher rates when conditions are conducive to heavy disease pressure.

ACTIVE INGREDIENT

- Prothioconazole 480 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- Application rate is crop and disease specific - see "Diseases Controlled" section for rate by crop.

PACKAGE SIZE

- **Case:** 2 x 10 L jugs
- **Bulk:** 120 L drum

WATER VOLUME

- See label for instructions by crop and disease.
- **Ground:** Minimum 10 US gallons/acre (40 L/acre)
- **Aerial:** Minimum 5 US gallons/acre (20 L/acre)
- Use higher rates for thicker crop canopies.

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour

**VIKING**

vikingcropproduction.com



HOW VIKING PROTHIOCONAZOLE WORKS:

VIKING Prothioconazole Fungicide is a broad spectrum, systemic fungicide for the control or suppression of listed diseases on registered crops with excellent systemic movement in the plant.

CROP STAGING

- **Canola:**
 - **Sclerotinia:** Apply when the crop is in the 20-30% bloom stage.
- **Wheat, barley, oats**
 - **Fusarium in wheat:** within the time-period when 75% of wheat heads are fully emerged to when 50% of heads on the main stems are in flower. This timing will also control the listed leaf diseases.
 - **Fusarium in barley:** apply between 70% and 100% full head emergence on the main stem up until 3 days after full head emergence. This timing will also control the listed leaf diseases.
 - **Leaf diseases:** Apply as a preventive foliar spray when the earliest disease symptoms appear on the leaves and stems.
- **Pulse Crops:** Apply when first symptoms of disease can be found or when the risk of infection is imminent.
- **Corn:**
 - **Leaf diseases:** Apply as a preventive foliar spray when the earliest disease symptoms appear on the leaves and stems.
 - **Fusarium:** Apply from the development stage of corn from when the tip of stigmata is visible until stigmata drying.

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- None

GRAZING RESTRICTIONS

- Do not graze the treated crop or feed to livestock

PREHARVEST INTERVAL

- **Wheat, barley, oat:** 30 days after application
- **Canola:** 36 days after application
- **Corn:** 14 days after application
- **Chickpea, lentil:** 7 days after application
- **Soybeans:** 20 days after application
- See label for complete list of preharvest intervals by crop.

STORAGE

- Store this product away from food or feed in a cool, dry, locked, well-ventilated area without a floor drain. Do not freeze.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of **VIKING Prothioconazole Fungicide** and finish filling the tank with water.
3. Maintain agitation throughout mixing and spraying.
4. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.
5. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Consult the product label for uses, application rates and water volumes for all crops and diseases. Good coverage is critical for effective disease control – use higher water volumes for dense canopies and higher disease pressure. Always consult the product label for application rates and water volumes for all crops and diseases. Fusarium head blight risk is greater when the weather is warm and wet at the flowering to soft dough stages. Consult the provincial disease risk maps for disease risk in your area. For fusarium head blight, ensure thorough coverage of all wheat heads for optimal suppression. Improved spray coverage of heads may be achieved by using nozzles designed to spray in two directions. Do not apply **VIKING Prothioconazole Fungicide** more than twice per crop season.

Always read and follow all label precautions and directions.

*When applying tank mix combinations, always follow all label requirements for each product including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

VIKING™ PYRACLOSTROBIN

Fungicide

Ferocious™, proven and affordable control of key diseases with both protective and curative properties that improves plant health and delivers wall to wall coverage against foliar diseases, for use in many different crops, particularly pulse crops.

GROUP 11

REPLACES: Headline®

REGISTERED CROPS AND USES

- Wheat
- Barley
- Rye
- Corn
- Dry beans
- Faba beans
- Field peas
- Lentils
- Chickpeas
- Soybeans
- Potatoes
- Sugar beets
- Alfalfa (for seed production)
- Grasses (blue grasses, fescues and ryegrasses for seed production)

DISEASES CONTROLLED

See label for complete list of diseases controlled.

Wheat		Field peas	
Tan spot, Septoria leaf blotch and leaf rust	120-240 mL/ac	Mycosphaerella blight and powdery mildew	160 mL/ac
Powdery mildew, spot blotch, and stripe rust	160-240 mL/ac	Downy mildew	160-240 mL/ac
Barley		Chickpeas	
Net blotch	120-240 mL/ac	Ascochyta blight	160 mL/ac
Scald, spot blotch, and stripe rust	160-240 mL/ac	Lentils	
		Anthraxnose and Ascochyta blight	160 mL/ac
Glyphosate-tolerant & conventional corn		Glyphosate-tolerant & conventional soybeans	
Common rust and gray leaf spot	160-240 mL/ac	Asian soybean rust and frog eye leaf spot	160 mL/ac
Dry beans		Potatoes	
Anthraxnose, mycosphaerella blight, powdery mildew, and rust	160-240 mL/ac	Early blight and late blight	180-267 mL/ac
Faba beans		Sugar beets	
Mycosphaerella blight and powdery mildew	160-240 mL/ac	Cercospora leaf spot and powdery mildew	268-360 mL/ac

* Use the higher rate and shorter interval when disease pressure is high.

ACTIVE INGREDIENT

- Pyraclostrobin 250 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- Application rate and acres treated depends on crop and disease. See Diseases Controlled section below or product label for application rate by crop and disease.

PACKAGE SIZE

- **Case:** 2 X 13 L jugs

WATER VOLUME*

- **Ground:** Minimum 10 US gallons/acre (40 L/acre), except potatoes and sugar beets minimum 20 US gallons/acre (80 L/acre)
- **Aerial:** Minimum 5 US gallons/acre (20 L/acre)
- *Use higher water volumes for thicker crop canopies.

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour



HOW VIKING PYRACLOSTROBIN WORKS:

The active ingredient pyraclostrobin is a strobilurin fungicide with broad spectrum contact and systemic activity. When product is applied to the top surface of the leaf it binds tightly in the waxy cuticle and moves to the lower leaf surface where it provides dual-sided protection against disease entry due to systemic activity within the leaf. It has a protective effect because it inhibits spore germination and a curative effect due to the inhibition of the mycelial growth and sporulation of the fungus on the leaf surface.

CROP STAGING

- Apply product at the first sign of disease. A second application at 14 days interval may be needed if conditions persist.

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- None.

GRAZING RESTRICTIONS

- Do not feed alfalfa hay or forage to livestock. All other crops can be grazed or fed to livestock.
- Corn crops may be grazed 6 days after last application.

PREHARVEST INTERVAL

- **Canola:** 21 days after application
- **Corn:** 7 days after application
- **Flax and soybeans:** 21 days after application
- **Dry beans, faba beans, field peas and lentils:** 30 days after application

STORAGE

- Do not ship or store near food, feed, seed and fertilizers. Protect from freezing. Store in cool, dry, locked, well-ventilated area without floor drain.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of any tank mix partner if needed.
3. Add required amount of **VIKING Pyraclostrobin Fungicide** to the tank, finish filling the tank with water, and apply product.
4. If application is stopped prior to completion, resuspend spray solution by full agitation prior to commencing spraying again.
5. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Consult the product label for complete information on uses, application rates and water volumes for all crops and diseases. Product works best if applied prior to, or at the onset of disease, and as part of a regularly scheduled protective spray program. Good coverage is essential for effective disease control, control can be improved by using higher water volumes with denser crop canopies. DO NOT apply to cereals that have started heading out – later application is thought to increase incidence of fusarium head blight in wheat and barley. DO NOT apply product more than once per season; if second application of fungicide is required switch to a fungicide with a different mode of action.

VIKING™ TEBUCONAZOLE

Fungicide

Ferocious™, powerful, proven control of leaf diseases in cereal crops and soybeans with preventative and curative fungicide activity, flexible application timing for leaf diseases, suppression of Fusarium head blight (FHB) in wheat, for use in wheat, barley, oat, and soybean.

GROUP 3

REPLACES: Folicur®

REGISTERED CROPS AND USES

- Wheat
- Barley
- Oats
- Soybean

DISEASES CONTROLLED

See label for complete list of diseases controlled.

Spring wheat, winter wheat, durum wheat

Controlled

Septoria glume blotch	202 mL/acre
Rusts (leaf, stem, stripe)	153-202 mL/acre
Septoria leaf blotch	153-202 mL/acre
Tan spot	153-202 mL/acre
Powdery mildew	202 mL/acre

Suppressed

Fusarium head blight	202 mL/acre
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Barley

Controlled

Net blotch	153-202 mL/acre
Spot blotch	153-202 mL/acre
Scald	153-202 mL/acre
Rusts (leaf, stem, stripe)	153-202 mL/acre
Septoria leaf blotch	153-202 mL/acre
Powdery mildew	153-202 mL/acre

Oats

Controlled

Crown rust	153 mL/acre
Stem rust	153 mL/acre
Stagnospora leaf blotch and black stem	153-202 mL/acre
Phaeosphaeria avenaria f. sp. avenaria	153-202 mL/acre

Soybeans

Controlled

Asian soybean rust	153-202 mL/acre
Frogeye leaf spot	153-202 mL/acre
Suppressed	
Powdery mildew	153-202 mL/acre

* use higher rates when conditions are conducive to heavy disease development.

ACTIVE INGREDIENT

- Tebuconazole 250 g/L emulsion in water (EW)

APPLICATION RATE AND ACRES TREATED

- Application rate and acres treated depends on crop and disease. See Diseases Controlled section or product label for application rate by crop and disease.
- Where there an application rate range, use higher application rates for higher disease pressure.

PACKAGE SIZE

- **Case:** 2 x 8.1 L jugs (acres treated depends on application rate)
- **Bulk:** 100 L drum, 1,000 L tote

WATER VOLUME

- **Ground:** Minimum 10 US gallons/acre (40L/acre)
- **Aerial:** Minimum 5 US gallons/acre (20 L/acre)
- Use higher water volumes for thicker crop canopies.

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour


VIKING

vikingcropproduction.com



HOW VIKING TEBUCONAZOLE WORKS:

Broad-spectrum fungicide for disease control in cereals and soybeans with preventative, curative, and eradicated properties. The active ingredient tebuconazole is a triazole demethylation inhibitor (DMI) fungicide with systemic broad-spectrum activity.

CROP STAGING

- **Wheat**
 - **Fusarium head blight, Septoria glume blotch:** within the time period when 75% of wheat heads are fully emerged to when 50% of heads on the main stem are in flower.
 - **Rusts, Septoria, tan spot, powdery mildew:** at the first sign or very early stage of disease, especially if weather conditions are conducive to disease development, up to the end of flowering stage.
- **Barley, oats**
 - **Net blotch, spot blotch, scald, rusts, Septoria, powdery mildew:** apply at the very early signs of disease development.
- **Soybeans**
 - **Asian soybean rust, frogeye leaf spot, powdery mildew:** apply when the first symptoms of disease can be found or when the risk of infection is imminent.

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Rauma Insecticide**, Sevin® XLR Plus

GRAZING RESTRICTIONS

- Animals may be grazed on treated crops 6 days after application.

PREHARVEST INTERVAL

- **Wheat, barley, oats:** 36 days after application
- **Soybeans:** 20 days after application
- See product label for complete list of preharvest intervals by crop.

STORAGE

- Store this product away from food or feed. Store in a cool, dry place. Store in original container and out of the reach of children, preferably in a locked storage area.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of any tank mix partners, if required.
3. Add required amount of **VIKING Tebuconazole Fungicide** to the tank, complete filling the tank, and apply.
4. If application is stopped prior to completion, resuspend spray solution by full agitation prior to commencing spraying again.
5. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Consult the product label for uses, application rates and water volumes for all crops and diseases. Fusarium head blight risk is greater when the weather is warm and wet at the flowering to soft dough stages. Consult the provincial disease risk maps to understand risk for your area before application. **VIKING Tebuconazole Fungicide** has preventative and curative properties and works best if applied early at the onset of disease. Good spray coverage is critical for effective disease control; use higher water volumes with dense crop canopies. Where a rate range is specified, use the higher rate when weather conditions are conducive to heavy disease development. For suppression of fusarium head blight, ensure optimum application timing and thorough coverage of all wheat heads for optimal suppression. Improved spray coverage of heads may be achieved by using nozzles designed to spray in two directions. DO NOT apply product more than once per season; if a second fungicide application is required switch to a fungicide with a different mode of action.

VIKING™ TROMSO

Fungicide

Ferocious™, effective, and proven broad-spectrum control of cereal leaf diseases and suppression of fusarium head blight with multiple modes of action for use in spring wheat, durum wheat, winter wheat & barley.

GROUP 3

REPLACES: Prosaro®

REGISTERED CROPS AND USES

- Spring wheat
- Winter wheat
- Durum wheat
- Barley

DISEASES CONTROLLED

Spring Wheat, Durum & Winter Wheat

Rusts (leaf, stem & stripe)
Septoria (leaf and glume blotches)
Tan spot
Powdery mildew

Barley

Rusts (leaf, stem & Stripe)
Septoria (Net, Leaf & Spot Blotch)
Scald
Powdery Mildew

DISEASES SUPRESSED

Spring, Durum, Winter Wheat & Barley

Fusarium Head Blight

ACTIVE INGREDIENT

- Prothioconazole 125 g/L (EC) + Tebuconazole 125 g/L (EC)

APPLICATION RATE AND ACRES TREATED

- **Application rate:** 325 mL/acre
- **Acres Treated:**
 - **Case:** 80 acres
 - **Bulk:** 104 L drum: 320 acres
 - **Bulk:** 625 L tote: 1920 acres

PACKAGE SIZE

- **Case:** 2 X 13 L jugs
- **Bulk:** 104 Litre drum, 625 Litre tote

WATER VOLUME

- **Ground:** Minimum 10 US gallons/acre (40L/acre)
- **Aerial:** Minimum 5 US gallons/acre (20 L/acre)
- Use higher water volumes for thicker crop canopies

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour

**VIKING**

vikingcropproduction.com



HOW VIKING TROMSO WORKS:

The active ingredients prothioconazole and tebuconazole are demethylation inhibitors with broad-spectrum systemic activity. The product combines 2 modes of action for the control or suppression of listed diseases on wheat, barley and oats.

CROP STAGING

- **Spring wheat, durum wheat, winter wheat**
 - **Fusarium head blight:** within the time-period when 75% of wheat heads are fully emerged to when 50% of heads on the main stems are in flower. This timing will also control the listed leaf diseases.
- **Barley**
 - **Fusarium head blight:** apply between 70 & 100% full head emergence on the main stem up until 3 days after. This timing will also control the listed leaf diseases.

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- None

GRAZING RESTRICTIONS

- Cut hay or harvest forage 5 days after application.

PREHARVEST INTERVAL

- Harvest the mature crop 36 days after application.

STORAGE

- Store tightly closed container away from feeds, seeds, fertilizer, plants and foodstuffs. Keep away from fire or open flame or other sources of heat. Do not store at temperatures below freezing.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of **VIKING Tromso Fungicide** to the water and finish filling the tank with water.
3. Maintain agitation throughout mixing and spraying.
4. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.
5. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Consult the product label for uses, application rates and water volumes for all crops and diseases. **VIKING Tromso Fungicide** has preventative and curative properties, but best performance will be achieved if applied at the onset of disease. Good coverage is essential for effective disease control; use higher water volumes for denser crop canopies. Pay close attention to application timing; application at head timing can provide both flag leaf protection and head protection. Fusarium head blight risk is greater when the weather is warm and wet at the flowering to soft dough stages. Consult the provincial disease risk maps for risk assessment for your area. For fusarium head blight, ensure thorough coverage of all wheat heads for optimal suppression. Improved spray coverage of heads may be achieved by using nozzles designed to spray in two directions. Do not apply **VIKING Tromso Fungicide** more than once per crop season. If additional applications of fungicide are required, switch to a fungicide with a different mode of action.

VIKING™ VAASA

Fungicide

Ferocious™, effective, high performance disease control with a unique combination of proven active ingredients that deliver multiple modes of action for resistance management, protective and curative properties for optimum crop health and premium disease control for use in pulse crops.

GROUP 3 & 11

UNIQUE TO VIKING

REGISTERED CROPS AND USES

- Lentils
- Chickpea
- Soybean

DISEASES CONTROLLED

Lentil

Anthrachnose
Ascochyta blight
white mold

Chickpea

Aschochyta blight

Soybean

Frogeye leaf spot
Asian soybean rust

ACTIVE INGREDIENT

- Prothioconazole 480 g/L emulsifiable concentrate (EC)
- Pyraclostrobin 250 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Application rate:** 125 mL/acre **VIKING Prothioconazole Fungicide** + 162 mL/acre **VIKING Pyraclostrobin Fungicide**

PACKAGE SIZE

- **Case:** 10 L jug **VIKING Prothioconazole Fungicide** + 13 L jug **VIKING Pyraclostrobin Fungicide**
- **Acres treated:** 80 acres/case

WATER VOLUME

- **Ground:** Minimum 10 US gallons/acre (40 L/acre)
- **Aerial:** Minimum 5 US gallons/acre (20L/acre)
- Use higher water volumes for thicker crop canopies.

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour





HOW VIKING VAASA WORKS:

Broad spectrum, systemic fungicide with two modes of action and both contact and systemic activity with excellent systemic movement in the plant for the control or suppression of listed diseases on registered crops.

APPLICATION TIMING

- **Lentils:** Apply at the beginning of flowering or the first signs of disease.
- **Chickpea, soybean:** Apply at the first sign of disease.

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- None

GRAZING RESTRICTIONS

- Do not feed hay or threshings or allow livestock to graze in treated areas.

PREHARVEST INTERVAL

- **Lentil, chickpea:** 7 days
- **Soybean:** 20 days
- See product labels for complete listing of pre-harvest interval by crop.

STORAGE

- Store this product away from food or feed in a cool, dry, locked, well-ventilated area without a floor drain. Do not freeze.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of **VIKING Prothioconazole Fungicide**.
3. Add the required amount of **VIKING Pyraclostrobin Fungicide** and finish filling the tank with water.
4. Maintain agitation throughout mixing and spraying.
5. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.
6. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Consult the product labels for uses, application rates and water volumes for all crops and diseases. Good coverage is critical for effective disease control – use higher water volumes for dense canopies and higher disease pressure. Good coverage is essential for effective disease control. Use higher water volumes for thicker crop canopies or higher disease pressure. **VIKING Vaasa Fungicide** will work best if applied prior to, or at the onset of disease. Use **VIKING Vaasa Fungicide** as part of an integrated disease management strategy including resistant crop varieties, crop rotation, and plant residue management. Rotate fungicide groups whenever possible to prevent resistance. Do not apply **VIKING Vaasa Fungicide** more than twice per crop season.

DESICCANTS



DESICCANTS	Page	Durum Wheat	Winter Wheat	Spring Wheat	Oats	Barley	Rye	Alfalfa	Canola	Flax	Dry Beans	Field Peas	Lentils	Chickpeas	Corn	Soybean	Potatoes	* See label for complete list
Viking Diquat Desiccant	123								X	X	X	X	X	X		X	X	X

PRE-HARVEST AND HARVEST AID HERBICIDES

DESICCANTS	Page	Durum Wheat	Winter Wheat	Spring Wheat	Oats	Barley	Rye	Alfalfa	Canola	Flax	Dry Beans	Field Peas	Lentils	Chickpeas	Corn	Soybean	Potatoes	* See label for complete list
VIKING Glyphosate Herbicide ¹	125		X	X	X	X			X	X	X	X	X	X		X	X	X
VIKING Carfentrazone Herbicide ^{1,2}	127		X ²	X ²	X ²	X ²					X ²	X ²		X ²			X	X

¹ There may be some crops where the grain buyer does not allow application of pre-harvest herbicides. Always check with your grain buyer before application.

² Must be mixed with glyphosate. See product label for details.



VIKING™

DESICCANTS AND HARVEST AIDS

VIKING™ DIQUAT

Desiccant

Ferocious™, fast-acting and effective crop drydown performance for a faster easier harvest in multiple crops.

GROUP 22

REPLACES: Reglone®

REGISTERED CROPS AND USES

Crop	Ground Application	Aerial Application
Canola†	0.5-0.69	0.69-0.93
Dry Bean	0.5-0.69	0.69-0.93
Adzuki bean	0.5-0.69	0.69-0.93
Soybean	0.5-0.69	0.69-0.93
Fababean	0.5-0.69	0.69-0.93
Flax	0.5-0.69	0.69-0.93
Lentil	0.5-0.69	0.69-0.93
Lupin	0.93	N/A
Mustard	0.5-0.69	0.69-0.93
Pea	0.5-0.69	0.69-0.93
Sunflower	0.5-0.69	0.69-0.93
Chickpeas†	0.5-0.69	0.69-1.09
Alfalfa, clover (seed production)	0.69-1.09	0.69-1.09

NOTE: Higher rates must be used with heavy crop stands, weedy crops, or heavy vine regrowth.

† Use high rates for dense crops and/or heavy weed infestations.

High rates are recommended in canola and chickpeas.

* This product can cause shattering losses in non-shatter resistant canola.

ACTIVE INGREDIENT

- Diquat 240 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- See Registered crop and rates section below or product label for registered application rates by crop.

PACKAGE SIZE

- **Case:** 2 X 10 L jugs
- **Bulk:** 115 L drum
- **Bulk:** 500 L tote
- **Bulk:** 1,000 L tote

WATER VOLUME

- **Ground:** 20-40 US gallons/acre (90-180 L/acre)
- **Aerial:** minimum 4.5 US gallons/acre (18 L/acre)
- Use higher water volumes for thicker crop canopies.

SURFACTANT

- Agral® 90 at 1 L per 1,000 L water

RAINFAST

- Minimum 1 hour





HOW VIKING DIQUAT WORKS:

The active ingredient diquat is a photosystem I inhibitor (group 22) herbicide which is absorbed by all leaf and stem surfaces. It is non-systemic, fast-acting, contact herbicide desiccant which interferes with photosynthesis resulting in plant death shortly after application.

APPLICATION TIMING

- **Canola:** 80-90% seed color change; harvest in 7-10 days, no later than 14 days
- **Dry Beans:** 80-90% of leaves defoliated & 80% of pods are yellow.
- **Soybeans:** 80-90% of leaves & 80% of pods are yellow
- **Faba beans:** most plants ripe & dry; bottom pods are tan or black; wait 4-7 days to harvest.
- **Flax:** 75% of bolls brown; harvest when sample tests dry
- **Lentils:** Lowest pods are light brown & rattle when shaken; wait 4-7 days to harvest
- **Mustard:** 75% of seed has turned color; harvest in 7-10 days, maximum 14 days
- **Peas:** bottom pods are ripe & dry; seeds detached from pods; harvest when sample tests dry
- **Lupins:** pods are brown and internal seed is yellow when cut.
- **Sunflowers:** backs of the heads & bracts are turning yellow and seed moisture is 20-50%; wait 15-20 days to harvest
- **Chickpeas:** plants yellow, pods mature, seeds changed colour & detached from pods
- **Alfalfa, Red & White Clover:** pods are ripe but before shattering; must harvest within 7 days.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

CROP ROTATIONS

- Grow all major crops the year after application

REGISTERED AND SUPPORTED TANK MIXES*

- None

GRAZING RESTRICTIONS

- Crop waste remaining after harvest (i.e. pea or alfalfa stems) can be fed to livestock

PREHARVEST INTERVAL

- See label for pre-harvest restrictions by crop

STORAGE

- Store this product away from food or feed in original container. Store above 0o C. If crystallization occurs because of storage below freezing, warm to room temperature and agitate gently until reconstituted.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of **VIKING Diquat Herbicide**.
3. Add the required amount of surfactant.
4. Complete filling of sprayer and apply.
5. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Product degrades in sunlight – the best time to apply is evening or before periods of darkness, or on cloudy days. Use high water volumes as directed and increase water volume with thick crop canopy. Typical symptoms include wilting, interveinal discoloration within hours of application, followed by leaf-edge blackening in some species, and complete browning of top growth. Complete desiccation can take from 4 – 14 days depending on the crop and weather conditions. Drought stress or late season moisture can reduce product performance.

Application timing is critical - if product is applied too early crop quality can be impacted.

Regular canola can shatter easily if harvest is delayed, pod shatter tolerant varieties will have less shattering. Adverse weather after application (heavy rains, wind, hail) may increase crop damage and loss.

VIKING™ 540 GLYPHOSATE

Herbicide

Ferocious™, affordable potassium salt 540-gram formulation glyphosate choice.

GROUP 9

REPLACES: Glyphosate 540

REGISTERED CROPS AND USES

- Pre-seed
- Summerfallow
- Pre-harvest and post-harvest applications
- Registered glyphosate tolerant crops
- Non-crop and industrial uses

WEEDS CONTROLLED

- Same weeds controlled as Roundup®
- See product label for a complete list of weeds controlled.

ACTIVE INGREDIENT

- Glyphosate 540 g/L soluble concentrate (SC) present as potassium salt

APPLICATION RATE AND ACRES TREATED

- See product label for application rates.

PACKAGE SIZE

- 500 L tote
- 1000 L tote

WATER VOLUME

Required water volume is crop and use specific. See product label for requirements

SURFACTANT

- Not required for most uses.
- Some uses required the addition of 350 mL/acre of a surfactant registered for use such as Agral® 90 or Ag-Surf®. See product label for details.

RAINFEST

- 1 hour



HOW VIKING 540 GLYPHOSATE WORKS:

A non-selective, systemic herbicide that moves from the foliage into the roots and kills the entire plant.

CROP STAGING

Crop	Stage
Glyphosate tolerant canola	Cotyledon to 6 leaf
Glyphosate tolerant soybeans	First trifoliolate to flowering
Glyphosate tolerant corn	Up to 8 leaves
Pre-seed, summerfallow, pre-harvest, post-harvest	See label for complete use recommendations

CROP ROTATIONS

- Grow all major crops the year after application

REGISTERED AND SUPPORTED TANK MIXES*

- Tank mixes are crop-and-use-specific. See product label for tank mix recommendations.

GRAZING RESTRICTIONS

- All portions of treated crops may be fed to livestock.

PREHARVEST AND GRAZING INTERVAL IN DAYS

- No preharvest interval is indicated.

STORAGE

- Store this product away from food or feed. Heated storage is not required. If product is frozen warm to room temperature and agitate before use. Avoid contamination of seed, feed, and foodstuffs.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of dry, soluble concentrate, or liquid tank mix partner products.
3. Add the required amount of **VIKING 540 Glyphosate Herbicide**.
4. Add the required amount of surfactant if needed and apply.
5. Always refer to tank mix partner labels for specific tank mix requirements.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

For best performance apply during warm moist growing conditions when temperatures are between 12°C and 24° C. Wilting and yellowing of annual weeds will occur within 2-4 days, perennials will require 7-10 days or longer, and full control may take 3-4 weeks depending on growing conditions. Control may be slowed or reduced under cool, wet cloudy conditions or if plants are stressed by drought, frost, or other stress conditions. Dirty water, hard water, water with suspended soil or organic matter or water containing calcium (Ca+), magnesium (Mg+), or iron (Fe+) ions will reduce control.

VIKING™ CARFENTRAZONE

Herbicide

Ferocious™, fast acting harvest aid with proven activity to dry down weeds and/or crop vegetation when mixed with glyphosate plus low use rates, no re-cropping restrictions, resulting in a faster easier harvest for use in many different crops.

GROUP 14

REPLACES: Aim®

REGISTERED CROPS AND USES

REGISTERED CROPS† AND RATES		
Crop	Rate (mL/ac)	Acres/Case
Wheat	47	204
Barley	47	204
Triticale	47	204
Oats	47	204
Sorghum	30	320
Peas	47	204
Dry beans	47	204
Chickpeas	47	204
Potatoes*	93-140	69-103

† Must be mixed with glyphosate in all cases except potatoes.

* First application has a maximum application of 140 mL/ac. If potatoes are in the vegetative growth stage when desiccation is initiated, a second application may be made 7-14 days after first application at 93-140 mL/ac.

ACTIVE INGREDIENT

- Carfentrazone-ethyl 240 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Application Rate:**
 - All crops except potatoes: 47 mL/acre
 - Potatoes: 93-140 mL/acre
- **Acres Treated:**
 - All crops except potatoes: 204 acres/case
 - Potatoes: 69-103 acres/case

PACKAGE SIZE

- **Case:** 2 X 4.8 L jugs

WATER VOLUME

- 10 US gallons/acre (40 L/acre)
- Use higher water volumes for thicker crop canopies.

SURFACTANT

- Addition of adjuvant is strongly recommended, especially for thicker canopies. Add Agral® 90 or AgSurf® at 0.25% v/v or 2.5 L per 1000 L of spray solution.

RAINFAST

- Minimum 1 hour



HOW VIKING CARFENTRAZONE WORKS:

The active ingredient carfentrazone is a contact herbicide that is primarily absorbed by the leaves of plants. Typical symptoms are rapid browning and necrosis which occurs rapidly within hours after application with control taking several days to one week.

APPLICATION TIMING:

- **Cereals:** Grain moisture less than 30% (Hard dough stage; a thumbnail impression remains on seed)
- **Peas and Dry Beans:** Apply when grain moisture is less than 30%.
 - **For dry beans:** apply when 80-90% of leaves have fallen, and pods are mature (yellow to brown in colour).
 - **For peas:** apply when 75-80% of pods are brown, the bottom pods are ripe, and the pea seeds are detached from the pods
- **Potatoes:** See label for complete instructions.
- **All other crops:** See label for complete instructions.

CROP ROTATIONS:

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*:

- **VIKING 540 Glyphosate Herbicide**

GRAZING RESTRICTIONS:

- No grazing restrictions listed.
- Preharvest Interval:
- Pre-Harvest Interval: Harvest mature crops at least 3 days after application, except potatoes which require at least 7 days after application

STORAGE:

- Store this product away from food or feed in a cool dry place away from heat.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of **VIKING Carfentrazone Herbicide**.
3. Add the required amount of **VIKING 540 Glyphosate Herbicide**.
4. Add the required amount of surfactant.
5. Complete filling of sprayer and apply.
6. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.

PERFORMANCE TIPS

Application of **VIKING Carfentrazone Herbicide** will not speed up crop maturity; It is used only to dry down foliage for ease of harvest. Optimal activity occurs when applied between 12°C and 24°C in good growing conditions. In warm moist conditions herbicide symptoms may be accelerated. Good coverage of crop and weeds is essential; due to rapid absorption by leaves, translocation is very limited. **VIKING Carfentrazone Herbicide** is primarily absorbed by the leaves of plants. Typical symptoms (rapid browning, necrosis) occurs rapidly within hours after application. Full crop drydown may take at least two weeks. Extreme weather conditions such as temperature, moisture, soil conditions and cultural practices may affect activity. Under drought conditions crop and weed drydown may be reduced as weeds hardened off by drought are less susceptible. Do not apply **VIKING Carfentrazone Herbicide** more than once per growing season; potatoes may require two applications. Do not apply to crops grown for seed production as the glyphosate may impact germination.

Always read and follow all label precautions and directions.



VIKING™

ADJUVANTS

VIKINGTM ADJUVANTS

VIKING PHC

REPLACES: MERGE[®]

A blend of surfactants with petroleum hydrocarbons for use with various herbicides.

ACTIVE INGREDIENTS:

50% surfactant blend + 50% solvent

VIKING PHOSPHATE ESTER

REPLACES: AMIGO[®]

For use the post-emergence herbicide **Viking Clethodim Herbicide**

ACTIVE INGREDIENTS:

Polyoxyalkylated alkyl phosphate ester

VIKING CROP OIL CONCENTRATE

REPLACES: SCORE[®]

VIKING Crop Oil Concentrate is a non-ionic blend of surfactants and highly refined paraffinic crop oil designed to optimize the performance of **VIKING Clodinafop Herbicide** on Spring Wheat and Durum Wheat.

ACTIVE INGREDIENTS:

Paraffin base petroleum oil with a Surfactant blend



INSECTICIDES

INSECTICIDE	Page	Durum Wheat	Winter Wheat	Spring Wheat	Oats	Barley	Rye	Alfalfa	Canola	Flax	Dry Beans	Field Peas	Lentils	Chickpeas	Corn	Soybean	Potatoes	* See label for complete list
NEW VIKING Rauma Insecticide	133								X						X		X	X
NEW VIKING Rorvik Insecticide	135	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X



VIKING™

INSECTICIDES

VIKING™ RAUMA

Insecticide

Ferocious™, proven and effective control of flea beetles, European corn borer, Colorado potato beetle, Potato flea beetle, and more, with fast activity for quick control of target insects, excellent crop safety, ground or aerial application options, tank mix options and a maximum pre-harvest interval of 7 days.

GROUP 3

REPLACES: Decis®

REGISTERED CROPS AND USES

- Canola
- Mustard
- Corn
- Potatoes
- Additional labelled crops
- See the product label for a complete list of registered crops

INSECTS CONTROLLED AND APPLICATION RATES

- Flea beetles
- European corn borer
- Colorado potato beetle
- Potato flea beetle
- Refer to the product label for insects controlled by crop and required application rates.

ACTIVE INGREDIENT

- Deltamethrin 50 g/L emulsifiable concentrate (EC)

APPLICATION RATE AND ACRES TREATED

- **Application rate:** application rate is crop and insect specific - see "Insects Controlled" section for specific application rates.
- Where there is an application rate range, use higher application rates for severe infestations.

RE-ENTRY

- Do not re-enter sprayed area within 12 hours of application.

PACKAGE SIZE

- **Case:** 2 x 10 L jug

WATER VOLUME

- **Ground:** 10 to 25 US gallons/acre
- **Aerial:** 2 – 4 US gallons/acre
- Refer to the product label for specific insect water volume requirements.
- Use higher water volumes with thicker crop canopies.

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour





HOW RAUMA INSECTICIDE WORKS:

VIKING Rauma Insecticide is a broad spectrum, non-systemic, synthetic pyrethroid insecticide which works by both contact and ingestion. Thorough coverage is required for optimum insect control.

APPLICATION TIMING

- **Insect stage:**
- **Canola & Mustard:** Apply when insects are present and active.
- **Corn:** Apply when egg masses begin to hatch and no later than when first pin hole damage is seen on the leaf.
- **Potatoes:**
 - **Colorado potato beetle:** Apply when insects are present or when signs of damage is noticed.
 - **Potato flea beetle:** Apply when insects are visible or when first signs of damage appear.
 - **European Corn borer:** Apply when egg masses start to hatch.
- **Other crops:** See the product label for crops, insects controlled and application rates..

CROP ROTATIONS

- Grow all major crops the year after application

REGISTERED AND SUPPORTED TANK MIXES*

- **VIKING Bromoxynil Herbicide, VIKING Dicamba Herbicide, VIKING Hamar Herbicide, VIKING 2,4-D Ester 700 Herbicide, VIKING MPCA Ester 600 Herbicide**

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

GRAZING RESTRICTIONS

- None specified on the product label.

PREHARVEST INTERVAL

- **Canola/Mustard:** 7 days
- **Corn:** 5 days
- **Potato:** 1 day
- See product label for pre-harvest interval for all labelled crops.

STORAGE

- Store in original containers away from feed, seeds, fertilizer, plants and foodstuffs. Do not freeze. If stored for greater than one year shake vigorously prior to use.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of **VIKING Rauma Insecticide** and finish filling the tank with water.
3. Maintain agitation throughout mixing and spraying.
4. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.
5. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Consult the product label for uses, application rates and water volumes for all insect pests. **VIKING Rauma Insecticide** is fast acting so control should be seen when field inspected at re-entry (minimum 12 hours after application). High water volumes are required to ensure proper coverage of the target pest. **VIKING Rauma Insecticide** is a contact insecticide and therefore needs to be applied when pests are actively feeding. Optimal control occurs when applied between 15°C and 25°C. Best results will occur when the product is applied during the cooler portions of the day (for example early morning or at dusk). Because there is no residual activity insect re-infestations can occur soon after application. Do not apply when temperatures are above 25°C. Do not apply more than 3 times per growing season.

VIKING™ RORVIK

Insecticide

Ferocious™, highly effective and extended control of many different insect pests, with fast activity for quick control of target insects, residual control, excellent crop safety, ground or aerial application options, a favorable environmental profile, tank mix flexibility, and a maximum pre-harvest interval of 14 days for use in many different crops.

GROUP 28

REPLACES: Coragen®

REGISTERED CROPS AND USES

- Cereals
- Oilseeds
- Pulses
- Vegetables
- Corn
- Grass forage
- Fruit trees
- And many other crops.
- See the product label for a complete list of registered crops

INSECTS CONTROLLED AND APPLICATION RATES

- Army worm
- Cutworms
- Cabbage looper
- Cabbage worm
- Colorado potato beetle
- Corn earworm
- Diamondback moth
- Grasshopper
- European corn borer
- Lepidopteran leafminer
- Swede midge
- Tobacco hornworm
- Variegated cutworm
- See product label for a complete list of insects controlled and application rates

ACTIVE INGREDIENT

- Chlorantraniliprole 200 g/L suspension (S)

APPLICATION RATE AND ACRES TREATED

- **Application rate:** application rate is crop and insect specific - see "Insects Controlled" section for specific application rates.
- Where there is an application rate range, use higher application rates for heavier infestations or larger insects.

RE-ENTRY

- Do not re-enter sprayed area within 12 hours of application.

PACKAGE SIZE

- **Case:** 2 x 8 L jugs per case

WATER VOLUME

- **Ground:** Minimum 10 US gallons/acre
- **Aerial:** Minimum 5 US gallons/acre
- Use higher water volumes with thicker crop canopies.
- Refer to the product label for specific insect water volume requirements.

SURFACTANT

- Not required

RAINFAST

- Minimum 1 hour
- Avoid application when heavy rain is forecast.





HOW VIKING RORVIK INSECTICIDE WORKS:

VIKING Rorvik Insecticide is a broad spectrum insecticide that acts through both contact and ingestion. Insect feeding on leaf tissues results in paralysis and death. Although feeding quickly comes to a stop within minutes of application, complete insect death may take several days after ingestion. Depending on use rates and conditions, **VIKING Rorvik Insecticide** can provide up to 21 days of residual activity, controlling hatching insects all the way through to adult stages of development.

APPLICATION TIMING

- **European corn borer, corn earworm, western bean cutworm:**
- Time application to coincide with peak egg hatch.
- **Lepidopteran leafminer:** Apply at egg hatch.
- **Cutworms**
- Apply when feeding is observed and when rain is not expected in the next 24 hours. For optimal control, apply to smaller plants or when lower portions of the plant can receive adequate coverage.
- **Other insects:** Begin application when treatment thresholds have been reached.
- **See product label for complete list of insects controlled and application timing.**

CROP ROTATIONS

- Grow all major crops the year after application

GRAZING RESTRICTIONS

- None specified on the product label.

PREHARVEST INTERVAL

- **Field corn or popcorn:** 14 days
- **Brassica vegetables:** 3 days
- **All other crops:** 1 day
- See product label for pre-harvest interval for all labelled crops.

REGISTERED AND SUPPORTED TANK MIXES*

VIKING Askim Herbicide, VIKING Avesta Herbicide, VIKING Clodinafop Herbicide, VIKING Flucarbazone Herbicide, VIKING Bodo Herbicide, VIKING Brevik Herbicide, VIKING Clopyralid Herbicide, VIKING Clethodim Herbicide, VIKING Drammen Herbicide, VIKING 540 Glyphosate Herbicide, VIKING Glufosinate 150 Herbicide, VIKING Glufosinate 200 Herbicide, VIKING Hamar Herbicide, VIKING Harstad Herbicide, VIKING Imazamox Herbicide, VIKING Larvik Herbicide, VIKING Lidingo Herbicide, VIKING Navik Herbicide, VIKING Pinoxaden 50 Herbicide, VIKING Quizalofop Herbicide, VIKING Stavanger Herbicide, VIKING 2,4-D Ester 700 Herbicide, VIKING MPCA Ester 600 Herbicide, VIKING Azoxystrobin Fungicide.

STORAGE

- Store in original containers away from feed, seeds, fertilizer, plants and foodstuffs. Do not freeze. If stored for greater than one year shake vigorously prior to use.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/2 full of water and begin agitation.
2. Add the required amount of **VIKING Rorvik Insecticide** and finish filling the tank with water.
3. If required, add any additional tank mix products.
4. Maintain agitation throughout mixing and spraying.
5. If application is stopped prior to completion, re-suspend spray solution by full agitation prior to commencing spraying again.
6. Clean out sprayer equipment thoroughly after application is complete.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

Consult the product label for uses, application rates and water volumes for all insect pests. **VIKING Rorvik Insecticide** is fast acting so control should be seen when field inspected at re-entry (minimum 12 hours after application). **VIKING Rorvik Insecticide** works through contact and ingestion and therefore needs to be applied when pests are actively feeding. For insect pests with a range of application rates, use the high rate under heavy pest pressure or for larger insect pests. Refer to the product label for upper limits of **VIKING Rorvik Insecticide** allowed per crop group. Coverage is important to obtain optimum control- higher water volumes are recommended for denser crop canopies. The number of applications allowed per season is crop dependent, see label for details. Do not make a foliar application of **VIKING Rorvik Insecticide** for a minimum of 60 days following an in-furrow or soil application of seed or seed pieces treated with a Group 28 insecticide. To protect beneficial insects such as bees, insecticide applications should be made when pollinators are not foraging to avoid unnecessary exposure.

SEED TREATMENTS



SEED TREATMENTS	Page	Durum Wheat	Winter Wheat	Spring Wheat	Oats	Barley	Rye	Alfalfa	Canola	Flax	Dry Beans	Field Peas	Lentils	Chickpeas	Corn	Soybean	Potatoes	* See label for complete list
NEW VIKING Grimstad Seed Treatment	137										X	X	X	X		X		X



VIKINGTM

SEED TREATMENT

VIKINGTM GRIMSTAD

Seed Treatment

FerociousTM, effective, and proven control of rhizoctonia, fusarium, pythium and damping off plus suppression of ascochyta in a ready-to-use formulation for use on peas, lentils, chickpeas, dry beans and soybeans.

GROUP 4 & 11

REGISTERED CROPS AND USES

- Peas
- Lentils
- Chickpeas
- Dry beans
- Soybeans

DISEASES CONTROLLED

Peas, chickpeas, dry beans:

Rhizoctonia
Fusarium
Pythium

Lentils:

Rhizoctonia
Fusarium
Botrytis
Seed decay, damping off

Soybeans:

Rhizoctonia
Fusarium
Pythium
Phomopsis longicolla

DISEASES SUPPRESSED

Peas, chickpeas, lentils:

Seed-borne ascochyta blight

ACTIVE INGREDIENT

- Trifloxystrobin 13.5 gm/L + metalaxyl 10.8 gm/L formulated as a suspension.

APPLICATION RATE:

Application rate: 370 ml per 100 Kg of seed

PACKAGE SIZE AND ACRES TREATED:

- **Case:** 2 x 10 L treats 197 bushels
- **Bulk:** 100 L drum treats 986 bushels





HOW VIKING GRIMSTAD WORKS:

The active ingredient trifloxystrobin is a strobilurin fungicide with broad spectrum preventative activity, while the active ingredient metalaxyl is an acylalanine fungicide with systemic activity. For best results, ensure uniform application of **VIKING Grimstad Seed Treatment Fungicide** on the seed for the best disease protection and to ensure seed safety.

CROP ROTATIONS

- Grow all major crops the year after application.

REGISTERED AND SUPPORTED TANK MIXES*

- Compatible with all rhizobium inoculants.

GRAZING RESTRICTIONS

- Do not feed or graze animals on treated areas for 4 weeks after planting.

STORAGE

- Store product in original container only, away from other pesticides, fertilizer, food or feed.
- DO NOT store below 0°C. This product cannot be frozen and must be placed in a heated or adequately insulated area to avoid sub-zero temperatures.
- Store in a cool, dry place and avoid excessive heat.
- Keep container closed. Do not contaminate water, food, or feed by storage, disposal, or by cleaning of equipment.

* When applying tank mix combinations, always follow all label requirements for each product, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed.

MIXING INSTRUCTIONS

1. Mix **VIKING Grimstad Seed Treatment Fungicide** with clean water to form a slurry seed treatment.
2. Mix 370 mL of slurry per 100 kg of seed to be treated.
3. The slurry should be applied as a spray into the mixing chamber of the seed treating equipment to ensure good coverage.
4. When preparing the slurry the following procedure should be used:
 - a. Partially fill the mixing tank with water.
 - b. Add the required quantity of **VIKING Grimstad Seed Treatment Fungicide** onto the water surface.
 - c. Allow product to disperse and then switch on agitation.
 - d. Top up with extra water to required volume and maintain agitation during use.
 - e. Add colourant last.

Always read and follow all label precautions and directions.

PERFORMANCE TIPS

VIKING Grimstad Seed Treatment Fungicide is a ready-to-use formulation designed for commercial or on-farm treating with conventional seed treating equipment which can accurately control application rates and provide a good distribution of the chemical onto the seed in the mixing chamber. Uniform application of the seed is necessary to ensure seed safety and best disease protection. Use handling equipment designed to minimize mechanical damage when moving seed. The user is responsible for ensuring that the treated seed, when dried and ready for bagging, storage or seeding, has an unnatural colour. Conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment. Before beginning treatment, treat a small quantity of seed using equipment similar to that planned for treating the total seed lot. Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigour and poor quality, may result in reduced germination and/or reduction of seed and seedling vigour. Treated or untreated seed may drop in germination with age and germination drops are accelerated under adverse storage conditions or in seed with a high level of mechanical damage. Due to seed quality and seed storage conditions beyond the control of **Viking Crop Production Partners Inc.**, no claims are made to guarantee the germination of carry-over seed or propagating materials for all crop seed.



BEST PRACTICES FOR EFFECTIVE SPRAYER CLEAN-OUT

To avoid injury to sensitive crops or desirable plants, it is important to thoroughly clean out spray equipment after application 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.



VIKING

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MANAGING HERBICIDE RESISTANCE

In the past several decades Canadian farmers have seen firsthand the challenge of herbicide resistance on their farms. Herbicide resistant weeds develop due to the repeated use of the same herbicide group over a number of years on the same field. The development of resistance typically starts with a small number of weeds developing resistance, and these weeds then spreading across a field and into neighboring fields. These resistant weed biotypes may be resistant to both repeated doses and higher than label rates of the herbicide in question.

Understanding herbicides and herbicide resistance can be confusing because different herbicide brands often contain the same active ingredient, so simply switching herbicide brands may not help to manage resistance and may in fact make the problem worse.

There can also be differences in how quickly resistance develops, depending on both the weed and the herbicide. In western Canada, some of the most common resistant weeds are kochia, wild oats, cleavers, and chickweed, and the herbicide group that has the most resistant weeds is group 2, with group 9 glyphosate tolerant weeds becoming a much bigger threat than even 15 years ago. However, farmers should not assume that if they rotate to another herbicide group that resistance will not happen on their farm, as repeated use of any herbicide group will increase the risk of resistance.

WHAT CAN FARMERS DO TO MANAGE HERBICIDE RESISTANCE?

1. **ADD TANK MIXES TO GLYPHOSATE.** Glyphosate tolerant weeds are becoming a major problem in western Canada. When using glyphosate, always add a tank mix partner.
2. **ROTATE HERBICIDE GROUPS.** Research has shown that herbicide rotation is one of the best ways to delay herbicide resistance. Check the herbicide label to determine which herbicide group it belongs to.
3. **USE MULTI-MODE OF ACTION HERBICIDES.** Using herbicide products that have 2 different modes of action on the same weed can also help delay herbicide resistance.
4. **UTILIZE HERBICIDE LAYERING:** Consider using herbicides from multiple groups in sequential applications to target the same weeds and will include soil-applied herbicides combined with pre-seed burnoff, followed by an in-crop herbicide application. Layering three to four herbicide groups is shown to be the most effective.
5. **ROTATE CROPS.** Different crops will often have different herbicide options, so having a long-term crop rotation can help delay resistance.
6. **CHANGE CULTURAL PRACTICES.** Consider cultural changes, such as delayed seeding, tillage, increasing plant stands, and fertility. All of these things can help increase crop competition and reduce weed populations.
7. **PLAN LONG TERM.** Consider your crop and herbicide rotation over a longer term, not just 1 year. That can help you plan your herbicide rotation at the same time.

TALK TO VIKING ABOUT MANAGING HERBICIDE RESISTANCE

Viking Crop Production Partners has the herbicide products to help manage herbicide resistance. We have one of the largest portfolios of no-nonsense herbicides in Canada, providing Canadian farmers with affordable high-performance solutions from most major herbicide mode of action groups.

VIKINGTM RESOURCES



CONVERSION CHART FOR 2,4-D AND MCPA

Active ingredient (Oz/ac)	Herbicide	Concentration (g ai/l)	Rate Applied (Ml/ac)	Acres per 10 L jug
1	MCPA Na salt	300	94	107
	MCPA K salt	400	70	143
	MCPA ester	600	47	214
	2,4-D LV ester	700	40	250
2	MCPA Na salt	300	187	53
	MCPA K salt	400	140	71
	MCPA ester	600	94	107
	2,4-D LV ester	700	80	125
3	MCPA Na salt	300	281	36
	MCPA K salt	400	210	48
	MCPA ester	600	141	71
	2,4-D LV ester	700	120	83
4	MCPA Na salt	300	375	27
	MCPA K salt	400	280	36
	MCPA ester	600	187	53
	2,4-D LV ester	700	160	63
5	MCPA Na salt	300	469	21
	MCPA K salt	400	350	29
	MCPA ester	600	234	43
	2,4-D LV ester	700	200	50
6	MCPA Na salt	300	563	18
	MCPA K salt	400	420	24
	MCPA ester	600	281	36
	2,4-D LV ester	700	240	42

Active ingredient (Oz/ac)	Herbicide	Concentration (g ai/l)	Rate Applied (Ml/ac)	Acres per 10 L jug
7	MCPA Na salt	300	656	15
	MCPA K salt	400	490	20
	MCPA ester	600	328	30
	2,4-D LV ester	700	280	36
8	MCPA Na salt	300	750	13
	MCPA K salt	400	560	18
	MCPA ester	600	375	27
	2,4-D LV ester	700	320	31
9	MCPA Na salt	300	844	12
	MCPA K salt	400	630	16
	MCPA ester	600	422	24
	2,4-D LV ester	700	360	28
10	MCPA Na salt	300	938	11
	MCPA K salt	400	700	14
	MCPA ester	600	469	21
	2,4-D LV ester	700	400	25
18	MCPA Na salt	300	1685	6
	MCPA K salt	400	1260	8
	MCPA ester	600	843	12
	2,4-D LV ester	700	723	14



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METRIC CONVERSION

Metric Unit	Imperial Multiply by	Imperial Unit	Imperial Multiply by	Metric Unit
LINEAR centimetre (cm)	× 0.39	Inch	× 2.54	LINEAR centimetre (cm)
AREA square metre (m ²) hectare (ha)	× 1.2 × 2.5	square yard acre	× 0.84 × 0.4	AREA square metre (m ²) hectare (ha)
VOLUME litre (L) litre (L)	× 0.22 × 0.27	Imperial gallon U.S. gallon	× 4.55 × 3.79	VOLUME litre (L) litre (L)
PRESSURE kilopascal (kPa)	× 0.14	(psi)	× 6.9	PRESSURE Kilopascal (kPa)
WEIGHT gram (g) kilogram (kg)	× 0.04 × 2.2	(oz) (lb)	× 28.35 × 0.45	WEIGHT gram (g) kilogram (kg)
AGRICULTURAL Litres per hectare (L/ha) Litres per hectare (L/ha) Litres per hectare (L/ha) Litres per hectare (L/ha) Millilitres per hectare (mL/ha) Millilitres per hectare (mL/ha) kilograms per hectare (kg/ha) grams per hectare (g/ha)	× 0.09 × 0.11 × 0.36 × 0.71 × 0.015 × 0.014 × 0.89 × 0.014	Imperial gallons per acre U.S. gallons per acre quarts per acre pints per acre Imperial fl.oz per acre U.S. fl. oz. per acre lb per acre oz per acre	× 11.23 × 9.35 × 2.81 × 1.41 × 70.17 × 73.05 × 1.12 × 70	AGRICULTURAL Litres per hectare (L/ha) Litres per hectare (L/ha) Litres per hectare (L/ha) Litres per hectare (L/ha) Millilitres per hectare (mL/ha) Millilitres per hectare (mL/ha) kilograms per hectare (kg/ha) grams per hectare (g/ha)

2,4-D/MCPA HERBICIDE EQUIVALENCIES'

ACTIVE INGREDIENT	FORMULATION (mL/ac)			COVERAGE (ACRES/10 L JUG)		
az/ac	500	600	700	500	600	700
1	56	47	40	178	212	250
4	227	189	162	44	53	62
5	283	236	202	35	42	49
6	340	283	243	29	35	41
7	397	331	283	25	30	35
8	453	378	324	22	26	31



VIKING

CROP PRODUCTION PARTNERS INC.



Ferocious™ Protection for Canada's Crops.

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