

{Booklet Label}

GROUP

14

HERBICIDE

**Valtera™ Herbicide**

HERBICIDE  
Water Dispersible Granules  
COMMERCIAL

Preemergence weed control in soybean, field corn, spring wheat, chickpea, field pea, lentils [small red and large green varieties], sunflowers and to maintain bare ground non-crop areas, including bare ground non-crop areas on farms. Also for harvest aid for dried shelled pea and bean (except soybean) and wheat.

ACTIVE INGREDIENT:

Flumioxazin.....51.1%

**READ THE LABEL BEFORE USE**

Warning: This product contains the allergen sulfite.

REGISTRATION NO.: 29230  
PEST CONTROL PRODUCTS ACT



**CAUTION - POISON**

**Net Contents: 2.27 kg**

Valent Canada, Inc.  
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Guelph, Ontario, Canada  
N1L 1C6  
(519)-767-9262  
www.valent.ca

## NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use this product in a way that is inconsistent with the directions on the label.

## FIRST AID

- IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.
- IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
- IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.
- IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL OR POISONING CALL  
1-800-682-5368***

## TOXICOLOGICAL INFORMATION

There is no specific antidote for this product. Apply symptomatic therapy.

## PRECAUTIONS

**KEEP OUT OF REACH OF CHILDREN.** Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing. Harmful if inhaled.

Wear protective goggles or face-shield when handling the concentrated product. Do not eat, drink or smoke during work. Wash hands and face thoroughly before eating, drinking, smoking, chewing gum, or using the toilet. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes. Remove clothing immediately if pesticide gets inside. Wash thoroughly and put on clean clothing. After

work, change clothing and wash entire body thoroughly. Wash contaminated working clothes separately from other laundry before reuse.

Follow mixer/loader and applicator scenario, as appropriate in the chart below. In addition, wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, socks and shoes, goggles or face-shield, during clean-up and repair activities.

Equipment	Personal Protective Equipment		Maximum amount of product handled per day
	Mixer/Loader	Applicator	
Groundboom	Chemical-resistant coveralls over long sleeved shirt and long pants, chemical-resistant gloves, socks and shoes, and goggles or faceshield	<b>Open cab:</b> coveralls over long-sleeved shirt, long pants, socks and shoes, and chemical-resistant gloves, and respirator with a NIOSH approved organic-vapour-removing cartridge with a prefilter approved for pesticides, or a NIOSH approved canister approved for pesticides	37 kg
		<b>Closed cab:</b> long-sleeved shirt, long pants, socks and shoes. (No gloves are required, but must be available for maintenance activities)	
Right-of-Way sprayer	Chemical-resistant coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, socks and shoes. Mixers and loaders must also wear goggles or faceshield.		7.0 kg
Backpack or High-pressure handwand equipment	Coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes, and respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides, or a NIOSH-approved canister approved for pesticides. Mixers and loaders must also wear goggles or faceshield.		1.2 kg
Low-pressure Hand-held Equipment			0.315 kg

Do not apply when weather conditions favour spray drift from treated areas. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Keep all unprotected persons out of operating areas, or vicinity where there may be drift. Only protected handlers may be in the area during application.

Application is limited to non-residential areas only when there is low risk of drift to areas of human habitation or activity such as houses, cottages, schools and recreational areas, taking into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

Do not enter or allow entry into treated areas until the sprays have dried in non-crop bare ground use areas. Do not enter or allow worker entry into treated areas until the restricted entry interval of 12 hours for all crop uses.

Do not apply to fine-textured soils.

Pregrazing Intervals:

Following treatment with Valtera™ Herbicide, follow these grazing restrictions:

For field corn:

- DO NOT permit livestock to graze fields within 93 days after application.
- DO NOT harvest as green feed or silage within 93 days after application.

For soybeans:

- DO NOT harvest as green feed or permit livestock to graze fields within 21 days after application.
- DO NOT cut hay/fodder within 50 days after application.

For wheat:

- DO NOT harvest as green feed or permit livestock to graze fields within 26 days after application.
- DO NOT cut hay/fodder within 52 days after application.

For all other crops:

- DO NOT graze, cut or feed treated crops to livestock.

Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.

Do not apply within 100 metres of non-dormant pears.

Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., contact Valent Canada, Inc.

Read and understand the entire label before opening this product. If you have any questions, call the manufacturer at 1-800-682-5368 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

#### **ENVIRONMENTAL PRECAUTIONS**

This product is toxic to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE. Toxic to small wild mammals.

Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

## **DISPOSAL**

**DO NOT REUSE THIS CONTAINER FOR ANY PURPOSE.** This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

## **STORAGE**

Do not contaminate water, food or feed by storage. Keep pesticide in original container. Store in a cool, dry, secure place. Do not put formulation or dilute spray solution into food or drink containers. Do not store or transport near feed or food. Not for use or storage in or around the home. To prevent contamination, store this product away from food or feed.

## **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management Valtera Herbicide contains a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to Valtera Herbicide and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

### **To delay herbicide resistance:**

- Where possible, rotate the use of Valtera Herbicide or other Group 14 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in the field.

- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological biological (weed-competitive crops or varieties) and other chemical control practices.
- Monitor treated weed populations for resistance development(for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information and to report suspected resistance, contact Valent Canada, Inc. at 1-800-682-5368 or at [www.valent.ca](http://www.valent.ca).

## GENERAL INFORMATION

Valtera Herbicide provides residual control of susceptible weeds in soybean, field corn, spring wheat, chickpea, field pea, lentils [small red and large green varieties], sunflowers and to maintain bare ground non-crop areas on farms when used in accordance with this label. It also may be used as a harvest aid for crop subgroup 6C dried shelled pea and bean (including bean (*Lupinus* spp.), bean (*Phaseolus* spp.), bean (*Vigna* spp.), broad bean [fava bean], chickpea, guar, lablab bean, lentil, pea (*Pisum* spp.), pigeon pea (excluding soybean) and wheat. Valtera Herbicide is effective as a preemergence herbicide, for control of selected grass and broadleaf weeds. Valtera Herbicide controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled preemergence when exposed to sunlight following contact with the soil applied herbicide. Preemergence weed control with Valtera Herbicide is most effective when applied to clean, weed-free soil surfaces. Disturbing soil surfaces may reduce herbicide efficacy.

Valtera Herbicide offers residual control of susceptible grass and broadleaf weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Always read and follow label directions for all tank mix products before using. The most restrictive labeling of any tank mix partner must be followed.

### Rotational Restrictions

The following rotational crops may be planted after applying Valtera Herbicide at the listed rate. Planting earlier than the recommended rotational interval may result in crop injury.

<b>Valtera Herbicide Rate</b>	<b>Crop</b>	<b>Rotational Interval</b>
105-140 g/ha (for harvest aid use on Dried Shelled Pea and Bean (except soybean))	Winter wheat	7 days
140 g/ha	Soybean, field corn, chickpea, field pea	Immediately
	Sunflowers	30 days
	Spring Wheat	7 days
	Durum Wheat	30 days
	Winter wheat	4 months
	Lentils [small red and large green varieties]	6 months
	Sorghum, dry common beans <sup>1</sup> , and Canola	9 months
	Alfalfa and barley	11 months
	All other crops not listed <sup>2</sup>	12 months
210 g/ha	Soybean, field corn, chickpea, field pea	Immediately
	Sunflowers	2 months
	Spring Wheat	7 days
	Winter wheat	4 months
	Lentils [small red and large green varieties]	6 months
	Sorghum, dry common beans <sup>1</sup>	9 months
	Alfalfa, barley, and canola	11 months
	All other crops not listed <sup>2</sup>	12 months

<sup>1</sup> Common bean varieties vary in their tolerance to herbicides, including to Valtera Herbicide. Since not all common bean varieties grown as rotational crops have been tested for tolerance to Valtera Herbicide, first seeding common bean varieties to the field previously treated with Valtera Herbicide should be limited to a small area to confirm tolerance prior to adoption as a general field practice. Additionally, consult your seed supplier for information on the tolerance of specific varieties of common bean as a rotational crop seeded to field treated with Valtera Herbicide.

<sup>2</sup> Successful soil bioassay must be performed prior to planting crops not listed.

## **GENERAL DIRECTIONS FOR USE**

### **SPRAYER AND APPLICATION INFORMATION**

Apply using ground application equipment only. Before applying Valtera Herbicide, start with clean, well maintained application equipment. Nozzles should be uniformly spaced on boom and frequently checked for accuracy. For broadcast application, apply Valtera Herbicide with ground equipment using standard commercial sprayers equipped with

nozzles designed to deliver the desired spray pressure and spray volume. When banding, use proportionately less water and Valtera Herbicide per hectare.

Equipment with Valtera Herbicide residues remaining in the system may result in crop injury to the subsequently treated crop. Spray equipment used to apply Valtera Herbicide should not be used to apply other materials to any plant foliage. Spray equipment must be cleaned each day following Valtera Herbicide application. After Valtera Herbicide is applied, the following steps must be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
2. Top off tank, add 4 L of 3% household ammonia for every 400 L of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes.
3. Drain tank completely.
4. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 3 minutes.
5. Remove all nozzles and screens and rinse them with clean water.
6. Do not contaminate water, food or feed by cleaning of equipment.

#### **MIXING INSTRUCTIONS**

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water. Engage gentle agitation.
2. While agitating, slowly add Valtera Herbicide to the spray tank. Agitation should create a rippling or rolling action on the water surface.
3. If tank mixing Valtera Herbicide with other labelled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
4. Add adjuvants or surfactants, if recommended.
5. Fill spray tank to desired level with water. **Agitation should continue until spray solution has been applied.**
6. Mix only the amount of spray solution that can be applied the day of mixing. Valtera Herbicide should be applied within 6 hours of mixing.

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

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

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

**DO NOT** apply by air.



Use caution when applying under circumstances where possible drift to unprotected persons or food, forage or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur.

Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much pressure.

Make application when the wind velocity favours on-target product deposition.

Do not make applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.

All ground application equipment must be properly maintained and calibrated using appropriate carriers.

**BUFFER ZONES:**

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment, or low-clearance hooded or shielded sprayers that ensure spray drift does not come in contact with orchard crop fruit or foliage.

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

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop	Buffer Zones (metres) Required for the Protection of:				
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial habitat
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	

		2	1	0	0	5
Field sprayer	Soybean, field corn, spring wheat, Crop Subgroup 6C (Dried Shelled Pea and Bean (except soybean)), Sunflowers	3	1	1	0	10
	Bare ground, non-crop uses	5	2	1	1	25*

\* Buffer zones for the protection of terrestrial habitats are not required for use on rights-of-way including railroad ballast, rail and hydro rights-of-way, and utility easements.

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

**The spray drift buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.**

#### **DIRECTIONS FOR USE IN SOYBEAN**

Valtera Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soil and/or applications made under cool, wet conditions. Severe crop injury will result when soils are flooded following applications of Valtera Herbicide. Risk of crop injury can be minimized by using on well drained soils, planting at least 4 cm deep, using high quality seed and completely covering seeds with soil prior to preemergence applications. Treated soil that is splashed onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate Valtera Herbicide in soil for residual weed control. Dry weather following applications of Valtera Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, Valtera Herbicide will control susceptible germinating weeds. Valtera Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a Valtera Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

If the crop treated with Valtera Herbicide is lost due to a catastrophe, such as hail or other forms of inclement weather, soybeans can be replanted immediately, provided no more than 210 g/ha of Valtera Herbicide was used on the lost crop. Crop injury may occur if these restrictions are not followed.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row. When these types of planters are used, apply Valtera Herbicide within 3 days of planting and before soybeans emerge.

Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.

### APPLICATION TIMING

Valtera Herbicide provides preemergence control of susceptible weeds in soybeans. Apply Valtera Herbicide with ground equipment before planting, during planting, or after planting, but before the crop emerges. Do not apply by air. Apply using ground application equipment only.

### Preemergence Applications

Valtera Herbicide may be applied to soybeans prior to planting or within 3 days after planting and prior to soybean emergence. Application after the soybeans have begun to crack, or are emerged, will result in severe crop injury. At an application rate of 210 g/ha of Valtera Herbicide on medium-textured soils, soybean crop injury may be observed following application.

### Burndown Applications (Spring and Fall)

Valtera Herbicide, applied as part of a burndown program, may be used for residual weed control where soybeans will be planted directly into a stale seedbed, cover crop, or in previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as the isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

### Tank Mix Restrictions

Do not tank mix Valtera Herbicide, or use in the same field, with flufenacet, metolachlor or s-metolachlor, dimethanamid or dimethanamid-p, alachlor, or acetochlor, as soybean injury may occur.

<b>SOYBEAN– Application Rates and Weed Claims</b>			
<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE (g/ha)</b>	<b>COMMENTS</b>
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> ) Common lamb's-quarters ( <i>Chenopodium album</i> )	Coarse-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence.
Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum ptycanthum</i> )	Medium-textured, with <5% organic	210	Postemergence: When weeds are already emerged,

<p>Kochia (<i>Kochia scoparia</i>) including Group 2, 4, and 9 resistant kochia  Canada fleabane (<i>Conyza canadensis</i>)  Common chickweed (<i>Stellaria media</i>)  Palmer amaranth (<i>Amaranthus palmeri</i>)  Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9</p> <p><i>Suppression only:</i>  Green foxtail (<i>Setaria viridis</i>)  Volunteer canola (<i>Brassica napus</i>) including glyphosate, glufosinate and imidazolinone tolerant varieties</p>	<p>matter</p>		<p>apply Valtera Herbicide as a tank mix<sup>2</sup> with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.</p>
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<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

**DIRECTIONS FOR USE IN FIELD CORN (minimum and no-till)**

Valtera Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Use only on no-till or minimum tillage fields where last year’s crop residue has not been incorporated into the soil. Crop injury may occur from applications made to poorly drained soil and/or applications made under cool, wet conditions. Severe crop injury will result when soils are flooded following applications of Valtera Herbicide.

Moisture is necessary to activate Valtera Herbicide in soil for residual weed control. Dry weather following applications of Valtera Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, Valtera Herbicide will control susceptible germinating weeds. Valtera Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a Valtera Herbicide application, weed control may be improved by irrigation with at least ½-1 cm of water. Do not irrigate when corn is emerging to 2-leaf.

Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation. Do not perform any tillage operations after application or weed control will be reduced. No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

Apply only once during a single growing season.

## APPLICATION TIMING

### Preemergence Applications

Valtera Herbicide provides preemergence control of susceptible weeds in field corn. Apply Valtera Herbicide with ground equipment between 7 and 30 days prior to planting field corn into no-till or minimum tillage fields.

### Burndown Applications (Spring and Fall)

Valtera Herbicide, applied as part of a burndown program, may be used for residual weed control where field corn will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

Do not apply by air. Use ground application equipment only.

<b>FIELD CORN – Application Rates and Weed Claims</b>			
<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE (g/ha)</b>	<b>COMMENTS</b>
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> ) Common lamb's-quarters ( <i>Chenopodium album</i> ) Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum ptycanthum</i> ) Kochia ( <i>Kochia scoparia</i> ) including Group 2, 4, and 9 resistant kochia  Canada fleabane ( <i>Conyza canadensis</i> ) Common chickweed ( <i>Stellaria media</i> ) Palmer amaranth ( <i>Amaranthus palmeri</i> ) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9  <i>Suppression only:</i> Green foxtail ( <i>Setaria viridis</i> ) Volunteer canola ( <i>Brassica napus</i> ) including glyphosate, glufosinate and imidazolinone tolerant varieties	Coarse-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence between 7 and 30 days prior to planting field corn into no-till or minimum tillage fields.  Postemergence: When weeds are already emerged, apply Valtera Herbicide as a tank mix <sup>2</sup> with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.
	Medium-textured, with <5% organic matter	210	

<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

## DIRECTIONS FOR USE IN SPRING WHEAT (minimum and no-till)

Valtera Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Use only on no-till or minimum tillage fields where last year's crop residue has not been incorporated into the soil. Crop injury may occur from applications made to poorly drained soil and/or applications made under cool, wet conditions. Severe crop injury will result when soils are flooded following applications of Valtera Herbicide.

Moisture is necessary to activate Valtera Herbicide in soil for residual weed control. Dry weather following applications of Valtera Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, Valtera Herbicide will control susceptible germinating weeds. Valtera Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a Valtera Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Do not irrigate spring wheat between emergence and spike.

Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation. Do not perform any tillage operations after application or weed control will be reduced. No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

Apply only once during a single growing season.

## **APPLICATION TIMING**

### **Preemergence Applications (Spring)**

Valtera Herbicide provides preemergence control of susceptible weeds in spring wheat. Apply Valtera Herbicide with ground equipment at minimum 7 days prior to planting spring wheat into no-till or minimum tillage fields. Wheat must be planted a minimum of 2.5 cm (1 inch) deep to ensure crop safety. Do not plant Durum wheat within 30 days of an application of Valtera Herbicide.

### **Burndown Applications (Spring and Fall)**

Valtera Herbicide, applied as part of a burndown program, may be used for residual weed control where spring wheat will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

For fall burndown: Application should be made in the fall, just before freeze-up and when winter annuals and perennial weeds are still growing to allow for optimum herbicide absorption and activity. Applications made after a killing frost will result in reduced perennial and winter annual weed control. Do not apply to snow covered or frozen soil. Abnormally warm winters may reduce the length of weed control observed in the spring.

Do not apply by air. Use ground application equipment only.

<b>SPRING WHEAT – Application Rates and Weed Claims for FALL APPLICATION</b>			
<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE (g/ha)</b>	<b>COMMENTS</b>
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> ) Common lamb's-quarters ( <i>Chenopodium album</i> ) Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum ptycanthum</i> ) Kochia ( <i>Kochia scoparia</i> ) including Group 2, 4, and 9 resistant kochia  Canada fleabane ( <i>Conyza canadensis</i> ) Common chickweed ( <i>Stellaria media</i> ) Palmer amaranth ( <i>Amaranthus palmeri</i> ) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9  <i>Suppression only:</i> Green foxtail ( <i>Setaria viridis</i> ) Volunteer canola ( <i>Brassica napus</i> ) including glyphosate, glufosinate and imidazolinone tolerant varieties	Coarse-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence in the fall. The following spring, plant spring wheat into no-till or minimum tillage fields.  Postemergence: When weeds are already emerged, apply Valtera Herbicide as a tank mix <sup>2</sup> with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.
	Medium-textured, with <5% organic matter	210	

<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

<b>SPRING WHEAT – Application Rates and Weed Claims for SPRING APPLICATION</b>			
<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE<sup>2</sup> (g/ha)</b>	<b>COMMENTS</b>

<p>Redroot pigweed (<i>Amaranthus retroflexus</i>)  Green pigweed (<i>Amaranthus powellii</i>)  Common ragweed (<i>Ambrosia artemisiifolia</i>)  Common lamb's-quarters (<i>Chenopodium album</i>)  Hairy nightshade (<i>Solanum sarachoides</i>)  Dandelion (<i>Taraxacum officinale</i>)  Eastern black nightshade (<i>Solanum ptycanthum</i>)  Kochia (<i>Kochia scoparia</i>) including Group 2, 4, and 9 resistant kochia</p> <p>Canada fleabane (<i>Conyza canadensis</i>)  Common chickweed (<i>Stellaria media</i>)  Palmer amaranth (<i>Amaranthus palmeri</i>)  Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9</p> <p><i>Suppression only:</i>  Green foxtail (<i>Setaria viridis</i>)  Volunteer canola (<i>Brassica napus</i>) including glyphosate, glufosinate and imidazolinone tolerant varieties</p>	<p>Coarse-textured and medium-textured soil, with &lt;5% organic matter</p>	<p>140</p>	<p>Preemergence:  Apply prior to weed emergence, and at minimum 7 days prior to planting spring wheat into no-till or minimum tillage fields.</p> <p>Postemergence:  When weeds are already emerged, apply Valtera Herbicide as a tank mix<sup>3</sup> with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.</p>
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<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: The duration of residual control may be reduced with 140 g/ha in medium textured soils <5% in OM.

<sup>3</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

## DIRECTIONS FOR USE IN FIELD PEA

Valtera Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds.. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Moisture is necessary to activate Valtera Herbicide in soil for residual weed control. Dry weather following applications of Valtera Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, Valtera Herbicide will control susceptible germinating weeds. Valtera Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or plants that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a Valtera Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.



Do not apply by air. Apply using ground application equipment only.

**APPLICATION TIMING**

**Preemergence Applications (spring)**

Valtera Herbicide provides preemergence control of susceptible weeds in field pea. Apply Valtera Herbicide with ground equipment prior to planting or within 3 days after planting and prior to emergence. Application after the field peas have begun to crack, or are emerged, will result in severe crop injury.

**Burndown Applications (Spring and Fall)**

Valtera Herbicide, applied as part of a burndown program, may be used for residual weed control where field pea will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

For fall burndown: Application should be made in the fall, just before freeze-up and when winter annuals and perennial weeds are still growing to allow for optimum herbicide absorption and activity. Applications made after a killing frost will result in reduced perennial and winter annual weed control. Do not apply to snow covered or frozen soil. Abnormally warm winters may reduce the length of weed control observed in the spring.

<b>FIELD PEA – Application Rates and Weed Claims for FALL APPLICATIONS</b>			
<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE (g/ha)</b>	<b>COMMENTS</b>
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> )	Coarse- textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence.
Common lamb’s-quarters ( <i>Chenopodium album</i> ) Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum ptycanthum</i> ) Kochia ( <i>Kochia scoparia</i> ) including Group 2, 4, and 9 resistant kochia  Canada fleabane ( <i>Conyza canadensis</i> ) Common chickweed ( <i>Stellaria media</i> ) Palmer amaranth ( <i>Amaranthus palmeri</i> ) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9  <i>Suppression only:</i> Green foxtail ( <i>Setaria viridis</i> ) Volunteer canola ( <i>Brassica napus</i> ) including glyphosate, glufosinate and imidazolinone tolerant varieties	Medium- textured, with <5% organic matter	210	Postemergence: When weeds are already emerged, apply Valtera Herbicide as a tank mix <sup>2</sup> with a glyphosate product, present as potassium salt, at 900 g a.i./ha

<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

<b>FIELD PEA – Application Rates and Weed Claims for SPRING APPLICATION</b>			
<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE<sup>2</sup> (g/ha)</b>	<b>COMMENTS</b>
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> ) Common lamb's-quarters ( <i>Chenopodium album</i> ) Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum ptycanthum</i> ) Kochia ( <i>Kochia scoparia</i> ) including Group 2, 4, and 9 resistant kochia  Canada fleabane ( <i>Conyza canadensis</i> ) Common chickweed ( <i>Stellaria media</i> )  Palmer amaranth ( <i>Amaranthus palmeri</i> ) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9  <i>Suppression only:</i> Green foxtail ( <i>Setaria viridis</i> ) Volunteer canola ( <i>Brassica napus</i> ) including glyphosate, glufosinate and imidazolinone tolerant varieties	Coarse-textured and Medium-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence.  Postemergence: When weeds are already emerged, apply Valtera as a tank mix <sup>3</sup> with a glyphosate product, present as potassium salt, at 900 g a.i./ha.

<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: The duration of residual control may be reduced with 140 g/ha in medium textured soils <5% in OM.

<sup>3</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

## **DIRECTIONS FOR USE IN CHICKPEA**

Valtera Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Moisture is necessary to activate Valtera Herbicide in soil for residual weed control. Dry weather following applications of Valtera Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, Valtera Herbicide will control susceptible germinating weeds. Valtera Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or plants that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a Valtera Herbicide application, weed

control may be improved by irrigation with at least ½ to 1 cm of water. Control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.

Do not apply by air. Apply using ground application equipment only.

## APPLICATION TIMING

### Preemergence Applications (Spring)

Valtera Herbicide provides preemergence control of susceptible weeds in chickpea. Apply Valtera Herbicide with ground equipment prior to planting or within 3 days after planting and prior to emergence. Application after the chickpeas have begun to crack, or are emerged, will result in severe crop injury.

### Burndown Applications (Spring and Fall)

Valtera Herbicide, applied as part of a burndown program, may be used for residual weed control where chickpeas will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

For fall burndown: Application should be made in the fall, just before freeze-up and when winter annuals and perennial weeds are still growing to allow for optimum herbicide absorption and activity. Applications made after a killing frost will result in reduced perennial and winter annual weed control. Do not apply to snow covered or frozen soil. Abnormally warm winters may reduce the length of weed control observed in the spring.

<b>CHICKPEA – Application Rates and Weed Claims for FALL APPLICATION</b>			
<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE (g/ha)</b>	<b>COMMENTS</b>
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> )	Coarse- textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence.
Common lamb's-quarters ( <i>Chenopodium album</i> ) Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum ptycanthum</i> ) Kochia ( <i>Kochia scoparia</i> ) including Group 2, 4, and 9 resistant kochia	Medium- textured, with <5% organic matter	210	Postemergence: When weeds are already emerged, apply Valtera as a tank mix <sup>2</sup> a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.
Canada fleabane ( <i>Conyza canadensis</i> ) Common chickweed ( <i>Stellaria media</i> ) Palmer amaranth ( <i>Amaranthus palmeri</i> ) Waterhemp, including biotypes resistant to			

herbicide groups 2, 5 and 9			
<i>Suppression only:</i> Green foxtail ( <i>Setaria viridis</i> ) Volunteer canola ( <i>Brassica napus</i> ) including glyphosate, glufosinate and imidazolinone tolerant varieties			

<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

<b>CHICKPEA – Application Rates and Weed Claims for SPRING APPLICATION</b>			
<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE<sup>2</sup> (g/ha)</b>	<b>COMMENTS</b>
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> ) Common lamb’s-quarters ( <i>Chenopodium album</i> ) Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum ptycanthum</i> ) Kochia ( <i>Kochia scoparia</i> ) including Group 2, 4, and 9 resistant kochia  Canada fleabane ( <i>Conyza canadensis</i> ) Common chickweed ( <i>Stellaria media</i> ) Palmer amaranth ( <i>Amaranthus palmeri</i> ) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9  <i>Suppression only:</i> Green foxtail ( <i>Setaria viridis</i> ) Volunteer canola ( <i>Brassica napus</i> ) including glyphosate, glufosinate and imidazolinone tolerant varieties	Coarse- textured and medium-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence.  Postemergence: When weeds are already emerged, apply Valtera as a tank mix <sup>3</sup> a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.

<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: The duration of residual control may be reduced with 140 g/ha in medium textured soils <5% in OM.

<sup>3</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

**DIRECTIONS FOR USE IN LENTIL [Small Red and Large Green Varieties]**

Valtera Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and

temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Moisture is necessary to activate Valtera Herbicide in soil for residual weed control. Dry weather following applications of Valtera Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, Valtera Herbicide will control susceptible germinating weeds. Valtera Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or plants that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a Valtera Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.

Do not apply by air. Apply using ground application equipment only.

## **APPLICATION TIMING**

### **Fall Burndown Applications (With Glyphosate)**

Valtera Herbicide, applied as part of a burndown program, may be used for residual weed control where lentils will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

Application should be made in the fall, just before freeze-up and when winter annuals and perennial weeds are still growing to allow for optimum herbicide absorption and activity. Applications made after a killing frost will result in reduced perennial and winter annual weed control. Do not apply to snow covered or frozen soil. Abnormally warm winters may reduce the length of weed control observed in the spring.

## **CROP TOLERANCE**

Lentil varieties vary in their tolerance to Valtera Herbicide. Testing has shown that small-seeded red and large-seeded green varieties are most tolerant to applications of Valtera Herbicide. Other seed classes of lentils should not be planted into areas treated with Valtera Herbicide.

Environmental conditions, such as saturated soils, and abnormally cool, wet weather after seeding may also increase lentil injury following a fall application of Valtera Herbicide. Valtera Herbicide is a very active herbicide and the user should exercise caution until gaining familiarity with this product.

<b>LENTIL [Small Red and Large Green Varieties] – Application Rates and Weed Claims for FALL APPLICATION</b>
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<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE (g/ha)</b>	<b>COMMENTS</b>
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> ) Common lamb's-quarters ( <i>Chenopodium album</i> ) Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum ptycanthum</i> ) Kochia ( <i>Kochia scoparia</i> ) including Group 2, 4, and 9 resistant kochia	Coarse- textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence.
Canada fleabane ( <i>Conyza canadensis</i> ) Common chickweed ( <i>Stellaria media</i> ) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9 Palmer amaranth ( <i>Amaranthus palmeri</i> )  <i>Suppression only:</i> Green foxtail ( <i>Setaria viridis</i> ) Volunteer canola ( <i>Brassica napus</i> ) including glyphosate, glufosinate and imidazolinone tolerant varieties	Medium-textured, with <5% organic matter	210	Postemergence: When weeds are already emerged, apply Valtera Herbicide as a tank mix <sup>2</sup> a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.

<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

### **DIRECTIONS FOR USE AS A HARVEST AID IN CROP SUBGROUP 6C: Dried Shelled Pea and Bean (except soybean)**

#### **General Restriction and Limitations**

- For use as a desiccant, do not apply more than 105-140 g/ha of Valtera Herbicide.
- Do not apply more than a single application of 140 g/ha of Valtera Herbicide during a growing season.
- Do not harvest within 5 days of application.
- Do not plant canola a minimum of 9 months after using this product as harvest aid. Refer to previous Rotational Restrictions table for specific instructions.

#### **Application Rate and Timing – Valtera Herbicide + Adjuvant**

Apply Valtera Herbicide at a rate of 105-140 g/ha plus methylated seed oil (MSO Concentrate) at a rate of 2.5 L/ha when crop is physiologically mature and a minimum of 80% of the pods are yellow to tan in colour and 20% are yellow in colour. If crop is treated too early, a reduction in seed quality may occur. Do not spray Valtera Herbicide on any area of the field with a significant amount of plants with green colour. May also be applied with Carrier adjuvant at 0.5 L / 100 L water volume OR Nufarm Enhance non-ionic spray adjuvant at 1.25 - 2.5L/1000L; use the higher rate with denser crop canopies and/or with higher weed pressures. A spray grade nitrogen source (either ammonium sulphate at 2.24-

2.8 kg/ha or a 28-32% nitrogen solution at 1-2 L/ha) may be added to the spray mixture along with adjuvant to enhance desiccation. The addition of a nitrogen source does not replace the need for an adjuvant. Crop can be harvested 5 days after application.

**Application Rate and Timing – Valtera Herbicide + Glyphosate**

Valtera Herbicide plus adjuvant treatment does not desiccate large weeds present in the field; tank mixing Valtera Herbicide 105-140 g/ha and an adjuvant with glyphosate present as isopropyl amine or potassium salt at 900 g a.i./ha increases control of emerged weeds and aids in harvest. Refer to glyphosate tankmix partner label for applicable pre-harvest intervals. DO NOT apply glyphosate to crops if grown for seed production.

To ensure thorough coverage, use 140-280 L spray solution per hectare. Nozzle selection should meet manufacturer's recommendation for post-emergence application.

<b>CROP SUBGROUP 6C: Dried Shelled Pea and Bean (including Bean (Lupinus spp.), Bean (Phaseolus spp.), Bean (Vigna spp.), Broad bean [fava bean], Chickpea, Guar, Lablab bean, Lentil, Pea (Pisum spp.), Pigeon pea– Application Rates</b>	
<b>TREATMENT + RATE</b>	<b>COMMENTS</b>
Valtera Herbicide at 105-140 g/ha + Adjuvant  (Carrier adjuvant at 0.5 L / 100 L water volume OR Nufarm Enhance non-ionic spray adjuvant, or other non-ionic surfactants, at 1.25 - 2.5L/1000L OR Methylated seed oil (MSO Concentrate) at a rate of 2.5 L/ha	Do not harvest within 5 days of application.  Do not subsequently seed canola to treatment area for a minimum of 9 months (see Rotational Restrictions table).  Will not desiccate large weeds present in the field
Valtera Herbicide 105-140 g/ha + Adjuvant (see above) + Glyphosate, present as isopropyl amine or potassium salt at 900 g a.i./ha	Refer to glyphosate tankmix partner label for applicable pre-harvest intervals.  Do not subsequently seed canola to treatment area for a minimum of 9 months (See Rotational Restrictions table).  Increases control of emerged weeds, depending on type and canopy size, and aids in harvest.  DO NOT apply glyphosate to crops if grown for seed production.

**DIRECTIONS FOR USE AS A HARVEST AID IN WHEAT**

**General Restriction and Limitations**

- For use as a desiccant, do not apply more than 105-140 g/ha of Valtera Herbicide.

- Do not harvest within 10 days of application.
- Do not apply more than a single application of 140 g/ha of Valtera Herbicide during a growing season.
- Do not plant canola a minimum of 9 months after using this product as harvest aid. Refer to previous Rotational Restrictions table for specific instructions.

#### **Application Rate and Timing – Valtera Herbicide + Adjuvant**

Apply Valtera Herbicide at a rate of 140 g/ha plus Nufarm Enhance non-ionic spray adjuvant, or other non-ionic spray adjuvants, at 1.25 - 2.5L/1000L, after the crop reaches the hard dough stage and grain has no more than 30% moisture; use the higher rate with denser crop canopies and/or with higher weed pressures. May also be applied with methylated seed oil (MSO Concentrate) at a rate of 2.5 L/ha. A spray grade nitrogen source (either ammonium sulphate at 2.24-2.8 kg/ha or a 28-32% nitrogen solution at 1-2 L/ha) may be added to the spray mixture along with adjuvant to enhance desiccation. The addition of a nitrogen source does not replace the need for an adjuvant. If crop is treated too early, a reduction in seed quality may occur. Crop can be harvested 10 days after application.

#### **Application Rate and Timing – Valtera Herbicide + Glyphosate**

Valtera Herbicide plus adjuvant treatment does not desiccate large weeds present in the field; tank mixing Valtera Herbicide 140 g/ha and an adjuvant with glyphosate present as isopropyl amine or potassium salt at 900 g a.i./ha increases control of emerged weeds and aids in harvest. Refer to glyphosate tankmix partner label for applicable pre-harvest intervals.

To ensure thorough coverage, use 140-280 L spray solution per hectare. Nozzle selection should meet manufacturer's recommendation for post-emergence application.

### **DIRECTIONS FOR USE IN SUNFLOWERS**

Valtera Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Moisture is necessary to activate Valtera Herbicide in soil for residual weed control. Dry weather following applications of Valtera Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, Valtera Herbicide will control susceptible germinating weeds. Valtera Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or plants that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a Valtera Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.



Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.

Do not apply by air. Apply using ground application equipment only.

The maximum amount of product handled per day using groundboom equipment is 43 kg.

## APPLICATION TIMING

### Preemergence Applications (Spring)

Valtera Herbicide provides preemergence control of susceptible weeds in sunflower. Apply Valtera Herbicide with ground equipment a minimum of 30 days prior to planting. At least 2.5 cm of rainfall or irrigation must occur between application of Valtera Herbicide and planting. Do not apply to frozen or snow covered soils.

### Burndown Applications (Spring and Fall)

Valtera Herbicide, applied as part of a burndown program, may be used for residual weed control where sunflowers will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

For fall burndown: Application should be made in the fall, just before freeze-up and when winter annuals and perennial weeds are still growing to allow for optimum herbicide absorption and activity. Applications made after a killing frost will result in reduced perennial and winter annual weed control. Do not apply to snow covered or frozen soil. Abnormally warm winters may reduce the length of weed control observed in the spring.

Sunflower – Application Rates and Weed Claims for SPRING APPLICATION			
WEEDS CONTROLLED	Soil Type <sup>1</sup>	RATE <sup>2</sup> (g/ha)	COMMENTS
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> ) Common lamb's-quarters ( <i>Chenopodium album</i> ) Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum ptycanthum</i> ) Kochia ( <i>Kochia scoparia</i> ) Canada fleabane ( <i>Conyza canadensis</i> ) Common chickweed ( <i>Stellaria media</i> )  <i>Suppression only:</i> Green foxtail ( <i>Setaria viridis</i> ) Volunteer canola ( <i>Brassica napus</i> ) including glyphosate tolerant varieties	Coarse- textured and medium-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence.  Postemergence: When weeds are already emerged, apply Valtera as a tank mix <sup>3</sup> a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.

<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>. The duration of residual control may be reduced with 140 g/ha in medium textured soils <5% in OM.

<sup>3</sup>. Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

<b>Sunflower – Application Rates and Weed Claims for FALL APPLICATION</b>			
<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE (g/ha)</b>	<b>COMMENTS</b>
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> ) Common lamb's-quarters ( <i>Chenopodium album</i> ) Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum ptycanthum</i> ) Kochia ( <i>Kochia scoparia</i> ) Canada fleabane ( <i>Conyza canadensis</i> ) Common chickweed ( <i>Stellaria media</i> )	Coarse- textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence.  Postemergence: When weeds are already emerged, apply Valtera as a tank mix <sup>2</sup> a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.
<i>Suppression only:</i> Green foxtail ( <i>Setaria viridis</i> ) Volunteer canola ( <i>Brassica napus</i> ) including glyphosate tolerant varieties	Medium- textured, with <5% organic matter	210	

<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

## **DIRECTIONS FOR USE AS A HARVEST AID IN SUNFLOWER**

### **General Restriction and Limitations**

- For use as a desiccant, apply 105-140 g/ha of Valtera Herbicide.
- Do not harvest within 5 days of application.
- Do not apply more than a single application of 210 g/ha of Valtera Herbicide during a growing season.
- Do not plant canola a minimum of 9 months after using this product as harvest aid. Refer to previous Rotational Restrictions table for specific instructions.

### **Application Rate and Timing – Valtera Herbicide + Adjuvant**

Apply Valtera Herbicide at a rate of 105-140 g/ha plus Nufarm Enhance non-ionic spray adjuvant, or other non-ionic spray adjuvants, at 1.25 - 2.5L/1000L, when crop is mature (when seed is 35% moisture or less), For many varieties, this is when the backs of heads are turning yellow and the bracts are turning brown. Use the higher rate with denser crop canopies and/or with higher weed pressures. May also be applied with methylated seed oil (MSO Concentrate) at a rate of 2.5 L/ha. A spray grade nitrogen source (either ammonium sulphate at 2.24-2.8 kg/ha or a 28-32% nitrogen solution at 1-2 L/ha) may be added to the spray mixture along with adjuvant to enhance desiccation. The addition of a nitrogen source does not replace the need for an adjuvant. If crop is treated too early, a reduction in seed quality may occur. Crop can be harvested 5 days after application.

To ensure thorough coverage, use 140-280 L spray solution per hectare. Nozzle selection should meet manufacturer's recommendation for post-emergence application.

**DIRECTIONS FOR USE IN BARE GROUND NON-CROP AREAS**

Valtera Herbicide, when used as directed, can be used on farms for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free.

Moisture is necessary to activate Valtera Herbicide in soil for residual weed control. Dry weather following applications of Valtera Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, Valtera Herbicide will control susceptible germinating weeds. Valtera Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a Valtera Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

Valtera Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils with high organic matter and/or high clay content.

- Do not apply by air. Ground application only.
- Do not apply to fine-textured soils.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 100 metres of non-dormant pears.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- Apply only once per growing season

<b>BARE GROUND NON-CROP AREAS - Application Rates and Weed Claims</b>			
<b>WEEDS CONTROLLED</b>	<b>Soil Type<sup>1</sup></b>	<b>RATE (g/ha)</b>	<b>COMMENTS</b>
Redroot pigweed ( <i>Amaranthus retroflexus</i> ) Green pigweed ( <i>Amaranthus powellii</i> ) Common ragweed ( <i>Ambrosia artemisiifolia</i> )	Coarse-textured, with <5% organic matter	280	Preemergence: Apply prior to weed emergence, in sufficient water for uniform coverage.  Postemergence: When weeds are already emerged, apply <b>Valtera</b>
Common lamb's-quarters ( <i>Chenopodium album</i> ) Green foxtail ( <i>Setaria viridis</i> ) Hairy nightshade ( <i>Solanum sarachoides</i> ) Dandelion ( <i>Taraxacum officinale</i> ) Eastern black nightshade ( <i>Solanum</i> )	Medium-textured, with <5% organic matter	420	

<p><i>ptycanthum</i>)  Kochia (<i>Kochia scoparia</i>) including Group 2, 4, and 9 resistant kochia</p> <p>Canada fleabane (<i>Conyza canadensis</i>)  Common chickweed (<i>Stellaria media</i>)  Volunteer canola (<i>Brassica napus</i>) including glyphosate, glufosinate and imidazolinone tolerant varieties  Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9  Palmer amaranth (<i>Amaranthus palmeri</i>)</p>			<p><b>Herbicide</b> as a tank mix<sup>2</sup> with a glyphosate, product present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha</p>
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<sup>1</sup>: Do not apply on soils with > 5% OM, or fine-textured soils.

<sup>2</sup>: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

Valtera is a trademark of Valent U.S.A. LLC.

{Base Container Label}

GROUP	14	HERBICIDE
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**Valtera™ Herbicide**

HERBICIDE  
Water Dispersible Granules  
COMMERCIAL

Pre-emergence weed control in soybean, field corn, spring wheat, chickpea, field pea, lentils [small red and large green varieties], sunflowers and to maintain bare ground non-crop areas, including bare ground non-crop areas on farms. Also for harvest aid for dried shelled pea and bean (except soybean) and wheat.

ACTIVE INGREDIENT:

Flumioxazin.....51.1%

**READ THE LABEL BEFORE USE**

Warning: This product contains the allergen sulfite.

REGISTRATION NO.: 29230  
PEST CONTROL PRODUCTS ACT



**CAUTION - POISON**

**Net Contents: 2.27 kg**

Valent Canada, Inc.  
3-728 Victoria Road South  
Guelph, Ontario, Canada  
N1L 1C6  
(519)-767-9262  
www.valent.ca

## NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use this product in a way that is inconsistent with the directions on the label.

## FIRST AID

- IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.
- IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
- IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.
- IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL OR POISONING CALL  
1-800-682-5368***

## TOXICOLOGICAL INFORMATION

There is no specific antidote for this product. Apply symptomatic therapy.

## PRECAUTIONS

**KEEP OUT OF REACH OF CHILDREN.** Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing. Harmful if inhaled.

Follow mixer/loader and applicator scenario on attached label.

In addition, wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, socks and shoes, goggles or faceshield, during clean-up and repair activities.

## **ENVIRONMENTAL PRECAUTIONS**

This product is toxic to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE. Toxic to small wild mammals. Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

## **DISPOSAL**

**DO NOT REUSE THIS CONTAINER FOR ANY PURPOSE.** This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

## **STORAGE**

Do not contaminate water, food or feed by storage. Keep pesticide in original container. Store in a cool, dry, secure place. Do not put formulation or dilute spray solution into food or drink containers. Do not store or transport near feed or food. Not for use or storage in or around the home. To prevent contamination, store this product away from food or feed.

Valtera is a trademark of Valent U.S.A. LLC.