# (Container)



# Perimeter™ MEGA XC PrecisionPac™ Herbicide

GROUP 4 HERBICIDE

# FOR SALE FOR USE ONLY IN THE PRAIRIE PROVINCES AND PEACE RIVER REGION OF BRITISH COLUMBIA

Perimeter MEGA XC PrecisionPac Herbicide is a selective herbicide for postemergent control of annual broadleaved weeds including cleavers and certain ALS-resistant broadleaved weeds such as kochia in spring wheat, durum wheat, spring barley <a href="mailto:and-oats">and-oats</a>. Perimeter MEGA XC will also suppress hemp-nettle, common chickweed and wild buckwheat.

AGRICULTURAL

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING KEEP OUT OF REACH OF CHILDREN

GUARANTEE: fluroxypyr, present as 1-methylheptyl ester 333 g a.e./L

Emulsifiable concentrate

REGISTRATION NO. 30095 PEST CONTROL PRODUCTS ACT



WARNING - EYE AND SKIN IRRITANT POTENTIAL SKIN SENSITIZER

NET CONTENTS: 1 L

Dow AgroSciences Canada Inc. 2400, 215 – 2nd Street S.W. Calgary, Alberta T2P 1M4 1-800-667-3852

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PRECAUTIONS
KEEP OUT OF REACH OF CHILDREN
WARNING - EYE IRRITANT
CAUTION - SKIN IRRITANT
DANGER - CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY
HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN
MAY CAUSE SKIN IRRITATION
DO NOT APPLY BY AIR

DO NOT get in eyes. Avoid contact with skin and clothing. Avoid breathing spray mist.

Reentry is not permitted until 12 hours after application for all agricultural scenarios.

Do not use in residential areas, which are defined as sites where bystanders may be present during or after spraying, including homes, schools, parks, playgrounds, playing fields and public buildings.

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., visit CropLife Canada's web site at www.croplife.ca.

# PROTECTIVE CLOTHING AND EQUIPMENT

Wear a hat, coveralls over a long-sleeved shirt and long pants, socks, rubber boots and chemical-resistant gloves during spraying or application. In addition, wear goggles or face shield during mixing, loading, repair and clean-up or when handling the concentrate. Applicators using a closed cab are not required to wear chemical-resistant gloves.

### **OPERATOR USE PRECAUTIONS**

Wear freshly laundered clothing and clean protective equipment daily. At completion of spraying or end of the day take a shower immediately. Wash thoroughly with soap and water before eating, drinking, smoking or using the toilet. Remove contaminated clothing at the end of the work session and store and wash separately from household laundry using detergents and hot water before reuse. If herbicide penetrates clothing, remove immediately; then wash thoroughly and put on clean clothing. Throw away clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist.

# PHYSICAL OR CHEMICAL HAZARDS

**COMBUSTIBLE.** Do not use or store near heat or open flame.

# **FIRST AID**

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

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**If inhaled**: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**If in eyes**: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

### TOXICOLOGICAL INFORMATION

THIS PRODUCT CONTAINS A PETROLEUM DISTILLATE. Vomiting may cause aspiration pneumonia. The decision of whether to induce vomiting or not should be made by the attending physician. If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration of petroleum based solvents must be weighed against toxicity when considering emptying the stomach. No specific antidote. Employ supportive care. Treatment should be based on the judgment of the physician in response to reactions of the patient.

# AGRICULTURAL CHEMICAL

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

### **ENVIRONMENTAL HAZARDS**

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning of equipment. This product is also toxic to non-target terrestrial plants.

### **STORAGE**

Store in original containers in a secure, dry heated storage. If product is frozen, bring to room temperature and agitate before use. Do not allow contamination of seeds, plants, fertilizers or other pesticides. Do not contaminate food, feedstuffs or domestic water supplies. If containers are damaged or spill occurs, use the product immediately or contain the spill with absorbent materials and dispose of waste.

#### **DISPOSAL**

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

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

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

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

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

# (Booklet)



# Perimeter™ MEGA XC PrecisionPac™ Herbicide

GROUP HERBICIDE

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GUARANTEE: fluroxypyr, present as 1-methylheptyl ester 333 g a.e./L Emulsifiable concentrate

REGISTRATION NO. 30095 PEST CONTROL PRODUCTS ACT



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NET CONTENTS: 1 L - bulk

**Dow AgroSciences Canada Inc.** 2400, 215 – 2nd Street S.W. Calgary, Alberta T2P 1M4

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# **OPERATOR USE PRECAUTIONS**

Wear freshly laundered clothing and clean protective equipment daily. At completion of spraying or end of the day take a shower immediately. Wash thoroughly with soap and water before eating, drinking, smoking or using the toilet. Remove contaminated clothing at the end of the work session and store and wash separately from household laundry using detergents and hot water before reuse. If herbicide penetrates clothing, remove immediately; then wash thoroughly and put on clean clothing. Throw away clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist.

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- 2. Make the empty, rinsed container unsuitable for further use.

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

### **Returnable Containers:**

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

# **Refillable Containers:**

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

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

# **GENERAL INFORMATION**

Perimeter MEGA XC is a selective postemergent herbicide for the control of annual broadleaved weeds in spring wheat, durum wheat, spring barley and oats, not underseeded with legumes. Perimeter MEGA XC offers a novel mode of action for controlling hard-to-kill annual broadleaved weeds such as kochia (including ALS resistant biotypes) and cleavers. Perimeter MEGA XC will also provide suppression of hempnettle, wild buckwheat and chickweed.

# MODE OF ACTION

Perimeter MEGA XC is a systemic auxin-type herbicide and moves within the plant for control of exposed and underground plant tissues. The product controls weeds by disrupting normal plant growth patterns. Symptoms of weeds include epinasty (twisting of the stems) and swollen nodes.

# **GENERAL USE PRECAUTIONS**

### **Sensitive Plants**

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

# **Non-Target Sites**

Do not apply where proximity of susceptible crops or other desirable plants is likely to result in exposure to spray or spray drift. See Environmental Hazards section of the label.

# **Crop Rotation**

Fields previously treated with Perimeter MEGA XC can be seeded the following year to alfalfa, barley, canola, corn, drybeans, flax, forage grasses, lentils, mustard, oats, peas, potatoes, rye, soybeans, sugarbeets, sunflowers or wheat or fields can be summerfallowed.

# **Tank Mixtures**

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Dow AgroSciences Canada Inc. at 1-800-667-3852 or <a href="www.dowagro.ca">www.dowagro.ca</a> for information before mixing any pesticide or fertilizer that is not specifically recommended on this label. The user assumes the risk of losses that result from the use of tank mixes that do not appear on this label or that are not specifically recommended by Dow AgroSciences Inc.Spray Equipment Precaution

Do not apply through any type of irrigation system.

DO NOT APPLY BY AIR.

### To Reduce Spray Drift

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

### **Equipment Clean-Up**

Equipment used to apply Perimeter MEGA XC should not be used to apply other pesticides to sensitive crops without thorough cleaning. Contact your Perimeter MEGA XC dealer for detailed equipment cleaning procedures.

# **DIRECTIONS FOR USE**

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

# **Crops Registered**

spring wheat durum wheat spring barley oats

# PERIMETER MEGA XC PRECISIONPAC HERBICIDE ALONE

Apply Perimeter MEGA XC for postemergent control of cleavers and kochia, including ALS resistant kochia and other broadleaved weeds infesting spring wheat, durum wheat spring barley and oats. See following table for weeds controlled/suppressed and applications rates.

Weeds Controlled Or Suppressed By Perimeter MEGA XC Alone

Weeds Controlled	Perimeter MEGA XC Rate (L/ha)
	(Ε/11α)
<u>chickweed</u> ◆ (up to 8 cm)	<u>0.41</u>
cleavers (1-4 whorls)	0.21
kochia (2-8 leaf)	0.31
round-leaved mallow (1-6 leaf)	0.41
volunteer flax (1-12 cm)	0.31
Weeds Suppressed	Perimeter MEGA XC Rate
	(L/ha)
hempnettle (2-6 leaf)	0.41
stork's-bill (1-8 leaf)	0.31
wild buckwheat (1-8 leaf)	0.21

<sup>\*</sup>Including biotypes resistant to Group 2 herbicides that inhibit the ALS enzyme.

**NOTE:** Perimeter MEGA XC activity is influenced by weather conditions. Optimum activity requires active crop and weed growth. The temperature range for optimum activity is 12°C to 24°C. 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, heat or cold stress, or if weeds have initiated flowering, or if heavy infestations exist.

# **APPLICATION DIRECTIONS**

### **Application Timing**

Apply to actively growing wheat and barley and oats from the 2-leaf crop growth stage up to and including initiation of stem elongation. Apply when weeds are actively growing. Best results are obtained from applications made to seedling weeds. Only weeds emerged at the time of treatment will be controlled. Extreme growing conditions such as drought or near freezing temperature prior to, at and following time of application may reduce weed control and increase the risk of crop injury at all stages of growth. Foliage that is wet at the time of application may decrease control. Perimeter MEGA XC applications are rainfast within 1 hour after application. Under conditions of low crop and high weed density, control may be reduced.

# Preharvest/Grazing Intervals (Perimeter MEGA XC applied alone)

- Livestock may be grazed on treated crops 3 days following application.
- Do not harvest the treated crop within 60 days after application.

# TANK-MIX COMBINATIONS – PERIMETER MEGA XC + ACHIEVE LIQUID HERBICIDE (Do not apply to oats)

For control of wild oats and green foxtail in spring wheat and spring barley apply 0.5 L/ha of Achieve Liquid with Perimeter MEGA XC. Refer to the above table for rates and broadleaved weeds controlled or suppressed with Perimeter MEGA XC. Read both product labels thoroughly for more information on precautions and additional directions for use. To control additional broadleaved weeds tank mix with either 2,4-D Ester or MCPA Ester up to a maximum of 560 g ae/ha. (equivalent to 1.0 L/ha of 2,4-D LV600 (0.85 L/ha 2,4-D Ester 700) or 1.12 L/ha of MCPA LV500 (0.93 L/ha MCPA LV600)) or 1.5 to 2.0 L/ha Curtail M. Refer to the 2,4-D Ester or MCPA Ester tank mix partner label for rates less than 560 g ae/ha and weeds controlled.

# **Mixing Instructions**

- 1. Begin to fill sprayer tank with clean water, and engage agitator. Agitation must be continued throughout the entire mixing and spraying procedure.
- 2. When the sprayer is three quarters full of water, add Achieve Liquid. If more than one container of Achieve Liquid is to be used, add all Achieve Liquid containers prior to adding Perimeter MEGA XC.
- **3.** Add Perimeter MEGA XC next. If more than one container of Perimeter MEGA XC is to be used, add all Perimeter MEGA XC containers prior to adding any other tank-mix partners.
- **4.** If 2,4-D Ester, MCPA Ester or Curtail M are also being added, add these next. If more than one container of 2,4-D Ester, MCPA Ester or Curtail M is to be used, add all 2,4-D Ester, MCPA Ester or Curtail M containers prior to adding Turbocharge.
- **5.** Lastly, add the required amount of Turbocharge and then continue to fill tank to desired level with water.

# TANK-MIX COMBINATIONS – PERIMETER MEGA XC + CURTAIL™ M HERBICIDE

Perimeter MEGA XC mixed with Curtail M will control a wide spectrum of broadlead weeds. Refer to Curtail M label for additional precautions and directions for use, particularly crop rotation restrictions.

# **Mixing Instructions**

Add the correct amount of Perimeter MEGA XC to spray tank 1/2 filled with water and agitate. Add the correct amount of Curtail M and continue to agitate.

# **Timing of Application**

Apply postemergence when weeds are in the seedling stage (2-4 leaf) and when spring wheat, durum wheat, spring barley <u>and oats</u> are in the 3-leaf to just before the flag leaf emergence stage. Do not apply later than the flag-leaf stage.

Low Rate: To control or suppress the following weeds apply a uniform spray containing Perimeter MEGA XC at 0.31 L/ha tank mixed with Curtail M at 1.5 L/ha.

# **Weeds Controlled**

Canada thistle (low infestations) cleavers (1-4 whorls) flax, volunteer (1-12 cm) flixweed (spring seedling 2-4 leaf) kochia\*\*\*
lamb's-quarters
mustard, wild
shepherd's-purse
stinkweed
sunflower, volunteer

wild buckwheat (1-8

leaf)

# **Weeds Suppressed**

stork's-bill (1-8 leaf)

High Rate: To control or suppress the following weeds apply a uniform spray containing Perimeter MEGA XC at 0.41 L/ha tank mixed with Curtail M at 2.0 L/ha.

# **Weeds Controlled**

Canada thistle\*
canola (volunteer)
cleavers (1-4 whorls)
common chickweed\*
common groundsel
dandelion\*\*
flixweed\*\*
hemp-nettle (2-6 leaf)
kochia\*\*\*

lamb's-quarters
redroot pigweed
round-leaved mallow (1-6
leaf)
Russian pigweed
scentless chamomile
shepherd's-purse
smartweed

sow-thistle (annual) sow-thistle (perennial) \* stinkweed stork's-bill (1-8 leaf) sunflower (volunteer) tartary buckwheat volunteer flax (1-12 cm) wild buckwheat (1-8 leaf) wild mustard

- \* Season long control, with some regrowth in the fall (top growth control).
- \*\* Spring rosettes only.
- \*\*\* Including biotypes resistant to Group 2 herbicides that inhibit the ALS enzyme.

The active ingredients in this tank mixture will only control chickweed that is emerged at TIME OF application. Chickweed plants which emerge after application will not be controlled. To improve the reduction in chickweed population at the end of season, delay the timing of application as late as possible to when the majority of chickweed plants have emerged. The reduction in chickweed population will also be improved in crops which are more competitive and which allow limited light penetration.

# Pre-Harvest/Grazing Intervals (Perimeter MEGA XC + Curtail M Herbicide)

- Do not cut or graze treated fields within 7 days after application.
- Do not harvest the treated mature crop within 60 days after application.

When tank mixing with Curtail M, wear goggles or face shield, coveralls and chemically resistant gloves, apron and boots when mixing, loading and during clean-up and repair.

Curtail M contains an ingredient that is rapidly absorbed through the skin and respiratory tract.

# TANK MIXES WITH PERIMETER MEGA XC + CURTAIL M HERBICIDE FOR ANNUAL GRASS CONTROL (Do not apply to oats)

Tank mixtures of Perimeter MEGA XC + Curtail M with other herbicides will provide control of additional weeds. See following table for tank mixes with Perimeter MEGA XC + Curtail M. Follow all precautions, minimal interval to harvest and directions for use on the Perimeter MEGA XC and tank-mix partner labels.

Tank-Mix Combinations with Perimeter MEGA XC at 0.31 L/ha + Curtail M at 1.5 L/ha or Perimeter MEGA XC at 0.41 L/ha + Curtail M at 2.0 L/ha

Perimeter MEGA		Rate of Tank-Mix		
XC	Crops Registered	Partner	Adjuvant Rate	Additional Weeds
Tank-Mix Partner				
Achieve Liquid	spring wheat,	0.5 L/ha	Turbocharge	green foxtail
	durum wheat,		0.5 L/100 L of	wild oats
	spring barley		spray volume	
			(0.5% v/v)	
Horizon Tank-Mix	spring wheat,	0.23 L/ha	Score	green foxtail
	durum wheat		0.8 L/ha	wild oats
			(0.8% v/v)	
Assert 300 SC	spring wheat,	1.3 L/ha	Refer to Assert	wild oats (1-3 leaf)
	durum wheat,		300 SC label	,
	spring barley	1.6 L/ha		wild oats (4 leaf)
Puma 120 Super	spring wheat,	385 mL/ha	None required	green foxtail only
	durum wheat,			
	spring barley	770 mL/ha		green foxtail, wild
				oats & barnyard grass
Everest 70 WDG	spring wheat,	43 g/ha	Refer to	green foxtail
or Everest Solupak	durum wheat		Everest 70	wild oats
70 DF			WDG or Everst	
			Solupak 70 DF	
			label	

# TANK-MIX COMBINATION – PERIMETER MEGA XC + 2,4-D ESTER LV600 HERBICIDE OR 2,4-D ESTER 700 HERBICIDE (Do not apply to oats)

For control of a wide spectrum of broadleaved weeds (see following table) apply Perimeter MEGA XC at 0.31 L/ha tank mixed with 2,4-D LV600 at 1.0 L/ha or 0.85 L/ha 2,4-D Ester 700. Apply postemergence when weeds are in the seedling stage (2-4 leaf) and when spring wheat, durum wheat and spring barley are in the 4-leaf to flag-leaf stage. Application before the 4-leaf stage of wheat and barley may cause severe twisting of leaves and stem, and head deformities which may reduce yield up to 10%. Do not apply later than the flag-leaf stage.

# **Mixing Instructions**

Add the correct amount of Perimeter MEGA XC to spray tank 1/2 filled with water and agitate. Add the correct amount of 2,4-D LV600 or 2,4-D Ester 700 and continue to agitate.

# Weeds Controlled or Suppressed by Perimeter MEGA XC + 2,4-D Ester LV600 or 2,4-D Ester 700 Tank-Mix

# **Weeds Controlled**

bluebur hoary cress ♦
burdock kochia ♦ ♦ ♦
canola (volunteer) lamb's-quarters

cleavers (1-4 whorls) mustards (except dog and green clovers (sweet) tansy)

clovers (sweet) tansy)
cocklebur plantain
flixweed prickly lettuce
field horsetail • ragweed

goat's-beard round-leaved mallow (1-6 leaf)

shepherd's-purse

stinkweed

stork's-bill (1-8 leaf) sunflower (annual)

vetch

volunteer flax (1-12 cm)

wild radish

wild buckwheat (1-4 leaf)

wild mustard

The following weeds will be controlled at the seedling stage (2-4 leaf) when growing rapidly (control may be reduced when weed infestations are heavy):

blue lettuce\* gumweed redroot pigweed dandelion\*\* hairy galinsoga Russian thistle docks hedge bindweed smartweed dog mustard field bindweed\* leafy spurge\* tartary buckwheat

field peppergrass oak-leaved goosefoot wild buckwheat (1-8 leaf)

# **Weeds Suppressed**

common chickweed\*\*\*(up to 8 cm) hempnettle (2-6 leaf stage) sow-thistle (perennial) \* sow-thistle (annual)

# Pre-Harvest/Grazing Intervals (Perimeter MEGA XC + 2,4-D Ester LV600 OR 2,4-D Ester 700)

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

# TANK-MIX COMBINATIONS – PERIMETER MEGA XC + 2,4-D ESTER LV600 HERBICIDE OR 2,4-D ESTER 700 HERBICIDE + OTHER HERBICIDES (Do not apply to oats)

Tank mixtures of Perimeter MEGA XC + 2,4-D Ester LV600 or 2,4-D Ester 700 with other herbicides will provide control of additional weeds. For products which may be tank mixed with Perimeter MEGA XC + 2,4-D Ester LV600 or 2,4-D Ester 700 and the additional weeds controlled see following table. Follow all precautions, minimal interval to harvest and directions for use on the Perimeter MEGA XC and tank-mix partner labels.

Tank-Mix Combinations with Perimeter MEGA XC (0.31 L/ha) + 2,4-D Ester LV600 (1.0 L/ha) or 2,4-D Ester 700 (0.85 L/ha)

Perimeter MEGA	,	Rate of Tank-Mix		Additional
XC	Crops Registered	Partner	Adjuvant Rate	Weeds
Tank-Mix Partner				
Achieve Liquid <sup>†, †††</sup>	spring wheat, durum wheat, spring barley	0.5 L/ha	Turbocharge 0.5 L/100 L of spray volume (0.5% v/v)	green foxtail, wild oats
Horizon Tank-mix	spring wheat, durum wheat	0.23 L/ha	Score: 0.8 L/ha (0.8% v/v)	wild oats <sup>††</sup> (1-6 leaf main stem)
		0.29 L/ha	Score: 1.0 L/ha (1.0% v/v)	green foxtail (1-5 leaf main stem) & wild oats <sup>††</sup>

<sup>\*</sup> Top growth control only.

<sup>\*\*</sup> Spring rosettes.

<sup>\*\*\*</sup> Including biotypes resistant to Group 2 herbicides that inhibit the ALS enzyme.

Assert 300 SC	spring wheat, durum wheat, spring barley	1.3 L/ha	Refer to Assert 300 SC label	wild oats (1-3 leaf stage)
		1.6 L/ha		wild oats (4 leaf stage)
Puma 120 Super	spring wheat, durum wheat	385 mL/ha	None required	green foxtail only
		770 mL/ha		green foxtail, plus wild oats & barnyard grass
Everest 70 WDG or Everest Solupak 70 DF	spring wheat, durum wheat	<u>43 g/ha</u>	Refer to Everest 70 WDG or Everest Solupak 70 DF label	green foxtail wild oats

<sup>&</sup>lt;sup>†</sup>Do not apply this tank-mix prior to the 4 leaf stage of the cereal crop as temporary crop injury could occur. This tank-mix may cause temporary crop injury. However, yield will not normally be affected. This tank-mix may reduce control of wild oats compared to Achieve Liquid alone.

TANK-MIX COMBINATIONS – PERIMETER MEGA XC PrecisionPAC HERBICIDE + 2,4-D ESTER HERBICIDE + REFINE EXTRA 75 DF HERBICIDE OR REFINE EXTRA 75 TOSS-N-GO HERBICIDE OR REFINE SG HERBICIDE (Do not apply to oats)

## Spring Wheat (excluding durum) and spring barley

In The Prairie Provinces and Peace River Region of British Columbia Only.

For control of a wide spectrum of broadleaf weeds, including cleavers, Perimeter MEGA XC Herbicide may be tank mixed with 2,4-D Ester Herbicide and Refine Extra 75 DF Herbicide or Refine Extra 75 Toss-N-Go Herbicide or Refine SG Herbicide or Refine SG Toss-N-Go Herbicide. Apply Perimeter MEGA XC Herbicide at 0.16 L/ha tank mixed with Refine Extra 75 DF Herbicide or Refine Extra 75 Toss-N-Go Herbicide at 20 g/ha, or Refine SG Herbicide or Refine SG Toss-N-Go Herbicide at 30 g/ha, 2,4-D Ester Herbicide at 280 g a.e./ha (equal to 0.5 L/ha of 2,4-D Ester LV 600 or 0.42 L/ha of 2,4-D Ester LV 700) and a non-ionic surfactant (Agral 90, Ag-Surf or Citowett Plus) at 2 L per 1000 L of spray solution. A spray volume of 100 L/ha should be utilized. Apply postemergence when weeds are in the seedling up to 4-leaf/whorls stage, and when spring wheat (excluding durum) and spring barley are in the 4-leaf to flagleaf stage. **Do not apply to crops underseeded to legumes.** 

# **Weeds Controlled or Suppressed**

**Weeds Controlled:** 

annual smartweed (green groundsel (common) shepherd's purse

smartweed, lady's thumb)

ball mustard hemp-nettle stinkweed

chickweed (1-6 leaf)<sup>1</sup>
Cleavers<sup>2</sup>
Corn spurry
Cow Cockle
flixweed

Chickweed (1-6 leaf)<sup>1</sup>
Rochia<sup>3</sup>
Lartary buckwheat
volunteer rapeseed<sup>4</sup>
volunteer sunflower
volunteer sunflower
wild buckwheat<sup>5</sup>
Russian thistle
wild mustard

<sup>&</sup>lt;sup>††</sup>Wild oat control may be reduced when tank mixed with Perimeter MEGA XC+2,4-D Ester LV600 or 2,4-D Ester 700.

<sup>†††2,4-</sup>D Ester can be tank mixed at rates up to a maximum of 560 g ae/ha with this tank-mix combination.

<sup>&</sup>lt;sup>1</sup> Spray before crop canopy prevents thorough coverage of weeds. Chickweed emerging after application will not be controlled.

<sup>&</sup>lt;sup>2</sup> Excluding Group 2 resistant cleavers

<sup>3</sup> Excluding Group 2 resistant kochia

# Weeds Suppressed:

Canada thistle<sup>6</sup> sow thistle<sup>6</sup>

round leaved mallow (2-6 leaf)<sup>7</sup> stork's Bill (2-6 leaf) toadflax (to 15 cm)<sup>8</sup>

<sup>6</sup> Apply when most of the thistles have emerged and are actively growing. Apply before bud stage, and before crop canopy prevents thorough coverage of thistles, when thistles are no larger than 15 cm in height for best top growth control. A single application will effectively inhibit the ability of emerged thistles to compete with the crop. Later emerging thistles will not be controlled.

<sup>7</sup> Apply to actively growing round leaved mallow. Will keep mallow stunted, but may not be able to reduce overall populations.

<sup>8</sup> A control program for this weed includes chemical application and frequent tillage.

### **Mixing Instructions**

Fill the tank to 1/3 full of clean water. With agitator running, add required amount of Refine Extra 75 DF Herbicide, or Refine Extra 75 Toss-N-Go Herbicide, or Refine SG Herbicide or Refine SG Toss-N-Go Herbicide and continue to agitate for a minimum of 5 minutes to ensure the Refine Extra 75 DF Herbicide, or Refine Extra 75 Toss-N-Go Herbicide, or Refine SG Herbicide or Refine SG Toss-N-Go Herbicide is completely dissolved. After it is fully dissolved add the Perimeter MEGA XC Herbicide with continuous agitation. Add the 2,4-D Ester herbicide and the rest of the water. Then add adjuvant. Use a spray volume of 100 L/ha. Consult the 2,4-D label for additional application instructions and use precautions.

# Preharvest/Grazing Intervals (Perimeter MEGA XC + Refine Extra + 2,4-D Ester)

- Allow 7 days between application and grazing of lactating dairy animals.
- Do not harvest forage or cut hay within 30 days after application.
- Remove meat animals from treated fields at least 3 days prior to slaughter.
- Do not harvest the treated mature crop within 60 days after application.

# TANK-MIX COMBINATION – PERIMETER MEGA XC + MCPA LV500 HERBICIDE OR MCPA LV600 HERBICIDE

For control of a wide spectrum of broadleaved weeds (see following table) apply Perimeter MEGA XC at 0.31 L/ha tank mixed with MCPA LV500 at 1.12 L/ha or MCPA LV600 at 0.93 L/ha. Apply postemergence when weeds are in the seedling stage (2-4 leaf) and when spring wheat, durum wheat, spring barley and oats are in the 3-leaf to flag-leaf stage. Application before the 3-leaf stage of wheat and barley may cause severe twisting of leaves and stem, and head deformities which may reduce yield up to 10%. Do not apply later than the flag-leaf stage. Do not apply to cereals underseeded with a legume.

### **Mixing Instructions**

Add the correct amount of Perimeter MEGA XC to spray tank 1/2 filled with water and agitate. Add the correct amount of MCPA LV500 or MCPA LV600 and continue to agitate.

# Weeds Controlled or Suppressed by Perimeter MEGA XC + MCPA LV500 or MCPA LV600 Tank-Mix Weeds Controlled

burdock, common hempnettle (2-6 leaf) ragweed, common canola, volunteer kochia<sup>†</sup> shepherd's-purse cleavers (1-4 whorls) lamb's-quarters stinkweed

cocklebur mustard (except dog & green tansy) sunflower, annual

flax, volunteer (1-12 cm) pigweed, redroot (1-4 leaf) vetch flixweed prickly lettuce wild radish

Wild buckwheat (1-8

leaf)

<sup>&</sup>lt;sup>4</sup> The tank-mix will not control imazethapyr tolerant canola varieties (e.g. Clearfield varieties or other varieties with the Pursuit Smart trait)

<sup>&</sup>lt;sup>5</sup> Apply to actively growing wild buckwheat from the cotyledon to 3-leaf stage. Control may be reduced under environmental stress. Large plants may regrow after treatment

# **Weeds Suppressed**

green smartweed stork's-bill (1-8 leaf)

# Pre-Harvest/Grazing Intervals (Perimeter MEGA XC + MCPA LV500 or MCPA LV600)

- Allow 7 days between application and grazing/cutting for hay.
- Do not harvest the treated mature crop within 60 days after application.

# TANK-MIX COMBINATIONS – PERIMETER MEGA XC + MCPA LV500 or MCPA LV600 + OTHER HERBICIDES (Do not apply to oats)

Tank mixtures of Perimeter MEGA XC + MCPA LV500 or MCPA LV600 with other herbicides will provide control of additional weeds. For products which may be tank mixed with Perimeter MEGA XC + MCPA LV500 or MCPA LV600 and the additional weeds controlled see following table. Follow all precautions, minimal interval to harvest and directions for use (including timing of application) on the Perimeter MEGA XC and tank-mix partner labels.

# Tank-Mix Combinations with Perimeter MEGA XC (0.31 L/ha) + MCPA LV500 (1.12 L/ha) or MCPA LV600 (0.93 L/ha)

27 000 (0.00 Ema)	1		I	1
Perimeter MEGA				
XC	Crops Registered	Rate/ha	Adjuvant Rate	Additional Weeds
Tank-Mix Partner				
Achieve Liquid <sup>†</sup>	spring wheat,	0.5 L/ha	Turbocharge	green foxtail
	durum wheat,		0.5 L/ha	wild oats
	spring barley		(0.5% v/v)	
Horizon Tank-mix	spring wheat,	0.23 L	Score 0.8 L/ha	wild oats
	durum wheat		(0.8% v/v)	
Assert 300 SC	spring wheat,	1.3 L	Refer to Assert	wild oats (1-3 leaf)
	durum wheat,		300 SC label	
	spring barley	1.6 L		wild oats (4 leaf)
Puma 120 Super	spring wheat,	0.77 L	None required	wild oats
	durum wheat,			
	spring barley			

<sup>&</sup>lt;sup>†</sup>MCPA Ester can be tank mixed at rates up to a maximum of 560 g ae/ha with this tank-mix combination.

# TANK-MIX COMBINATION - PERIMETER MEGA XC + SIMPLICITY™ (Do not apply to oats)

For control of a wide spectrum of broadleaf and grass weeds (see following table) in spring and durum wheat, apply Perimeter MEGA XC tank mixed with Simplicity. Apply post-emergence when weeds are actively growing: grass weeds up to the 4 leaf, 2 tiller stage and broadleaf weeds as indicated in the following table. Best results are obtained from applications made to seedling weeds. Apply to actively growing spring or durum wheat from the 3 leaf stage to the first node stage. Extreme growing conditions such as drought or near freezing temperature prior to, at, or following time of application may reduce weed control and increase the risk of crop injury at all stages of growth. Under conditions of low crop and high weed density, control may be reduced.

# **Mixing Instructions**

Fill the sprayer tank  $\frac{1}{2}$  full of water and start sprayer tank agitation. Add the required amount of Simplicity. Add the correct amount of Perimeter MEGA XC and continue to agitate.

<sup>&</sup>lt;sup>†</sup> Including biotypes resistant to Group 2 herbicides that inhibit the ALS enzyme.

# Preharvest/Grazing Intervals (Perimeter MEGA XC and Simplicity)

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

# **Rates of Application**

**I. Low Rate:** To control or suppress the following weeds apply a uniform spray containing Perimeter MEGA XC at 0.21 L/ha tank mixed with Simplicity at 375 mL/ha.

### **Weeds Controlled**

cleavers (1-4 whorls)

Wild oats (up to 4 leaf, 2 tiller) \*

\*Under low wild oat populations (<75 plants/m<sup>2</sup>)

**II. High Rate:** To control the above weeds plus the additional weeds listed below, apply a uniform spray containing Perimeter MEGA XC at 0.31 L/ha with Simplicity at 500 mL/ha.

# **Additional Weeds Controlled**

barnyard grass (1-5 leaf)	kochia* (2-8 leaf)
chickweed, common (up to 10 cm)	red root pigweed (1-8 leaf)
cleavers (1-6 whorls)	smartweed (lady's thumb, 1-5 leaf)
foxtail, yellow (1-5 leaf)	volunteer canola** (1-6 leaf)
hemp nettle (1-8 leaf)	volunteer flax (1-12 cm)
Japanese brome (1-6 leaf)	

<sup>\*</sup>Including biotypes resistant to Group 2 herbicides that inhibit the ALS enzyme.

# **Additional Weeds Suppressed**

brome, downy (2-6 leaf, 2 tillers)	storks-bill (1-8 leaf)
foxtail, green (1-5 leaf)	wild buckwheat (1-4 leaf)

# TANK-MIX COMBINATIONS -PERIMETER MEGA XC + SIMPLICITY + OTHER HERBICIDES (Do not apply to oats)

When tank mixing Perimeter MEGA XC + Simplicity at either the low or high rates, the addition of other herbicides will provide control of additional weeds. For products which may be tank mixed with Perimeter MEGA XC + Simplicity and the additional weeds controlled see following table. Follow all precautions, minimal interval to harvest and directions for use on the Perimeter MEGA XC and tank-mix partner labels.

Tank-Mix Combinations with Perimeter MEGA XC (0.21 L/ha) + Simplicity (375 mL/ha) or Perimeter MEGA XC (0.31 L/ha) + Simplicity (500 mL/ha)

Perimeter MEGA		Rate of Tank-Mix	
XC	Crops Registered	Partner	Additional Weeds Controlled
Tank-Mix Partner			
2,4-D Ester*	spring wheat, durum wheat,	Up to 420 g ae/ha	Susceptible weeds such as: mustard (except dog and green tansy), flixweed, bluebur, burdock, cocklebur, stinkweed, goatsbeard, prickly lettuce, lamb's-quarters, plantain, ragweeds, Russian thistle, shepherd's purse, annual sunflower, sweet clover, volunteer canola, wild buckwheat, wild radish *Consult 2,4-D Ester labels for weed stages and rates

<sup>\*\*</sup> will not control volunteer Imidazolinone-tolerant canola

MCPA Ester*	spring wheat durum wheat	Up to 560 g ae/ha	Burdock (before the 4-leaf stage), cocklebur, flixweed, plantain, lamb's-quarters, mustards (except dog and tansy), prickly lettuce, ragweeds, Russian pigweed, shepherd's-purse, stinkweed, vetch, wild buckwheat, wild radish, wild
			wild buckwheat, wild radish, wild (annual) sunflower.
			*Consult MCPA Ester labels for weed stages and rates

#### **BUFFER ZONES:**

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

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.

			Buffer Zones (metres) Required for the Protection of:		
Method of application	Crop	Freshwater Habitat of Depths:		Terrestrial	
		Less than 1	Greater than 1 m	habitat	
Field sprayer	Spring wheat, durum wheat, spring barley and Oats	1	0	3	

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.

# RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, Perimeter MEGA XC is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Perimeter MEGA XC and other Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

 Where possible, rotate the use of Perimeter MEGA XC or other Group 4 herbicides within a growing season (sequence) or among growing season with different herbicide groups that control the same weeds in a field.

- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Dow AgroSciences Canada Inc. at 1-800-667-3852 or at www.dowagro.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. The user assumes the risk to persons or property that arises from any such use of this product.

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