



## PRODUCTION

# Herbicide Options to Enhance Harvesting - FAQs

October 2010

### Which glyphosate products are registered for pre-harvest application to special crops?

Crops registered and rates (per acre):

PRODUCTS	Barley*, bean (dry), canola, field pea, flax (including solin) lentil, oat*, soybean, wheat.	Chickpea**, lupin**, faba bean**	Forages
356-360 g/L Formulations	1.0 L	x	1.0 to 2.0 L
480 g/L Formulations	0.76 L	x	0.76 to 1.52 L
500 g/L Formulations	0.73 L	x	0.73 to 1.46 L
540 g/L Formulations	0.67 L	0.67 L	0.67 to 1.34 L

Do not apply to crops grown for seed.

\*Registered for application to barley grown for malt and tame oat grown for milling, however contact malt barley or milling oat buyers prior to application to confirm acceptance of glyphosate-treated grain.

\*\*Roundup WeatherMax, Roundup Transorb HC, Roundup Ultra 2 and R/T 540 only.

### What types of actions do these herbicides accomplish?

Glyphosate products are registered to be used prior to harvest, specifically for the purpose of killing perennial weeds. Glyphosate works systemically upon absorption by the plant's foliar tissue.

### Which weeds are controlled by pre-harvest applications of glyphosate?

- Quack grass - four to five green leaves.
- Canada thistle and perennial sow-thistle - bud stage or beyond.
- Common milkweed - bud to bloom stage.
- Toadflax - bud to full bloom stage.
- Dandelion - from rosette to full bloom stage.



## How much water do I use when applying glyphosate in this application?

To ensure good coverage of weeds and to help penetrate crop canopy, a minimum of 23 L/ac. (five gal./ac.) is recommended. For heavier canopies or high weed densities, use 45 L/ac.(10 gal./ac.).

## Is the timing of application important?

Applications of glyphosate should be made when grain moisture is less than 30 per cent (*does not apply to forage*). The following chart can be used as a guideline to help determine when 30 per cent grain moisture has been reached.

CROP*	VISUAL SYMPTOMS
Wheat, Barley, Oat	Hard dough stage – a thumbnail impression remains on the seed.
Canola	Pods are green to yellow, and most seeds are yellow to brown.
Flax (including Solin)	Majority of the bolls, 75 to 80 per cent, are brown.
Lentil	Lowermost pods (bottom 15 per cent) are brown and rattle when shaken.
Pea	Majority of the pods, 75 to 80 per cent, are brown.
Chickpea	30 per cent or less grain moisture. Stems are green to brown in colour; pods are mature (yellow to brown in colour); 80 to 90 per cent leaf drop (original leaves.)
Soybean	Stems are green to brown in colour, and pod tissue is brown and dry in appearance (80 to 90 per cent leaf drop.)
Dry Bean	Stems are green to brown in colour, and pods are mature (yellow to brown), and 80 to 90 per cent of the original leaves have dropped.
Forage	Three to seven days prior to the last cut before rotation for forage renovation. Do not apply to forage stands that are to be maintained.

See the Guide to Crop Protection, crops section for the products registered on each crop.

## What is a pre-harvest interval?

The pre-harvest interval is the number of days that must pass between the last application of a pesticide and harvest. Harvest is the cutting of the crop, or removal of the produce from the plant. It includes direct-combining, cutting (swathing), or grazing. It does not include swath-combining or baling for hay.

## What is the pre-harvest interval following glyphosate application?

The pre-harvest interval for chickpea, lupin and fababean (minor use crops) is seven days. For other registered crops there is no specified pre-harvest interval, however; apply during the period seven to 14 days (or three to seven days for forage applications) before harvest to ensure best weed control and to maximize harvest management benefits. Thorough weed dry down usually occurs in 10 to 14 days following application.

## How does a true desiccant work?

Desiccants work by contact on plant foliar tissue. The action dries immature green material of indeterminate crops and green weeds to facilitate harvest. Application of a desiccant does not facilitate quicker maturation of the crop.

## What products are registered desiccants in Canada?

Reglone Desiccant is the only product registered for the explicit purpose of desiccating crops.

## Which crops are registered for application with Reglone?

CROP	STAGE	RATE (L/AC.)	
		Ground	Aerial
Dry beans, soybeans	Crop has lost 80 to 90 per cent of its leaves and 80 per cent of the pods are yellow.		
Flax, Solin	75 per cent of the bolls are brown.	0.5 to .7 L (Use high rate for dense crop, heavy weed infestations.)	0.7 to 0.9 L (Use high rate for dense crop, heavy weed infestations.)
Lentils	Lowest pods are light brown, and rattle when shaken.		
Mustard	75 per cent of the seed has turned brown.		
Canola*	60 to 75 per cent of the seed has turned brown.		
Peas	Bottom pods are ripe and dry; seeds are detached from the pods.		
Chickpeas**	Plants are yellow, pods mature, seeds changed colour and detached from pods.		
Sunflowers	Backs of sunflower heads and bracts are turning yellow and seed moisture is 20 to 50 per cent.		
Potatoes (some top growth and/ or some weeds.)	Two weeks prior to harvest.	0.7 to 0.9 L	Two applications are required. First application 0.7 to 0.9 L/ac.*** Second application (four to five days later) at 0.5 L/ac.
Potatoes (dense crop, heavy weed infestations.)		1.4 L	
Alfalfa, bird's-foot trefoil, red and white clover (for seed production only.)****	Pods are ripe but before shattering. Harvest within 7 days.	0.7 to 1.L (Use high rates for dense crops, heavy weed infestations.)	0.7 to 1.L (Use high rates for dense crops, heavy weed infestations.)

\* This product can cause shattering losses in canola. It should only be used on Argentine canola to assist in the harvest of a severely lodged crop.

\*\* Aerial applications to chickpea – 0.7 L/ac. only.

\*\*\* Use of high rate for dense or immature vines.

\*\*\*\*Do not use on forage legumes that have been treated with a residual herbicide in the previous 12 months.

Water Volumes: 91 to 222 L/ac.(ground); 222 to 445 L/ac. on potatoes (ground); 18 L/ac. (aerial); use the highest water volumes when crop canopy is heavy or if weed growth is dense.

## How long do I wait before harvesting following Reglone desiccant application?

**Pre-harvest interval:** Wait four to seven days before harvesting lentil. Do not exceed seven days to harvest when treating forage legumes. Wait at least seven days before harvesting lupins. Wait seven to 10 days before combining canola and mustard, but do not wait longer than 14 days. Wait 15 to 20 days for sunflowers. Harvest flax and peas when sample tests dry.

### For more information, contact:

Agriculture Knowledge Centre  
Toll free: 1-866-457-2377

### Acknowledgements:

Brent Flaten, Dale Risula, Ray McVicar, Grant McLean and Dr. Patrick Mooleki, Saskatchewan Ministry of Agriculture.