

Direct Harvest : Do you need a desiccant or a pre-harvest glyphosate?

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Understand How & When to use Pre-Harvest Herbicide.

Green stalks, weeds and uneven ripening can all be a problem at harvest. Late season rains following a extended dry period can often result in canola stalks staying green or result in canola regrowth further delaying harvest.

Desiccants or pre-harvest glyphosate products can help with timely defoliation and reduce yield losses caused by harvest delays as well as dockage due to green seeds or weeds.

Glyphosate or Reglone?

In Roundup Ready canola glyphosate will aid in perennial weed control but not crop dry down. Glyphosate can be an important tool for controlling perennial weeds for the following crop.

Glyphosate (e.g. Roundup) is designed for perennial weed control. It moves throughout the plant including the root system killing the plant and leading to gradual plant dry down. In the fall when cool, cloudy or wet weather persists, this process can take up to three weeks or longer.

Reglone on the other hand works much faster (i.e. a true desiccant) and works by disrupting plant cells leading to rapid dry down of plants and weeds.

Reglone acts like a designer frost to speed up dry down for earlier and easier harvest.

However, desiccants will not do any more than top growth burn down of perennial and annual weeds. So if the crop would be ready to harvest within 7 to 10 days and a quick burn off is required to dry down plants and weeds, choose Reglone.

Reglone is a fast acting desiccant, so application must be delayed to allow seed to physiologically mature. Applied too early the yield and quality will be reduced, and green colour can become locked into the seed.



The recommended stage for Reglone is when an average of 80 to 90% of seed on the whole plant has turned brown.

Keep in mind that this will likely be well past 75% seed color change on the main stem.

The most important thing to keep in mind is the crop must be physiologically mature before a harvest-aid product is applied. Products won't directly speed up the maturity of plants, or lower seed moisture content.

They do shorten the time between crop maturity and harvest, lowering the risk of shattering loss or weather damage.

Do not stage the crop according to leaf, stem or pod colour change, stage according to seed colour change.

Very early application to canola can result in reduced yield, poor seed quality from reduced seed size and seed discoloration.

Harvest-aids can help in timing harvest, but be careful not to apply too far ahead otherwise pod shatter can be a problem. It is important to understand that these products are not designed to seal the pods against pod shattering and in some cases may make the crop more vulnerable to shattering if harvest is delayed.

If applying pre-harvest chemicals with ground rig sprayers, using crop dividers can reduce the amount of crop loss due to trampling and shattering. In addition, traveling back and forth in the direction of prevailing crop lean will help reduce losses.

Glyphosate usage

Glyphosate should be used if perennial weeds are a problem.

Best weed control is achieved if weeds are actively growing and in bud to flowering stage. Uptake may be reduced or slowed under drought conditions when plants are less active, or when canola is past optimum maturity stage.

Dry down of plants will be quicker when temperatures are warmer. Cool, cloudy weather will slow dry down. This can give the appearance that weeds are not adequately controlled.

Reglone usage

Because Reglone has contact activity and is not translocated, the better the coverage, the better the results will be.

Reglone is activated by sunlight so application in evening or on cloudy days allows time for the product to spread over the surface of the plant resulting in much better efficacy and quicker dry down. In lodged crops it will be difficult to get good coverage of plants under the canopy. Harvest should occur as soon as the crop is ready (within 7 to 10 days), as delays can result in significant pod shatter or pod drop.

With Reglone usage, be prepared to harvest as soon as the crop is ready, because the more rapid dry down will leave the crop vulnerable to shattering sooner than if it is left to mature on its own.

Additional Information:

The Canola Council of Canada website is an excellent source of information on harvest management: <http://www.canolacouncil.org/canola-encyclopedia/managing-harvest/harvest-management/>



Benefits of Pre-harvest/Desiccation Products

- Faster combining due to dry down of canola and weeds.
- Perennial weed control – Canada thistle, Perennial Sow Thistle, Quackgrass, etc. with glyphosate application. Late summer timing can be especially effective for Canada thistle. Canada thistle is most vulnerable to glyphosate at the bud stage. Control will be only fair for Perennial sow thistle and other perennials that have developed seed and starting to mature.
- “Evening” out crop dry-down reduces risk of shattering losses while waiting on parts of field to dry down.
- Helps to facilitate harvest timing.

Goal: →	Pre-Harvest Weed Control	Crop and Weed Desiccation
	Glyphosate	Reglone
Harvest Timing	10 to 21 days (7 day minimum) following application (typical)	5 to 7 days
Benefits / Mode of Action	Control of perennial weeds. Glyphosate will not dry down crop in Roundup Ready canola. Mode of Action: Translocation	<ul style="list-style-type: none"> • Fast acting – “designer frost” • Mode of Action: contact – activated by sunlight • Target application within 7 to 14 days of harvest <p>Note: Plants are more susceptible to breakdown and pod</p>
Application Notes	Apply when 60 to 70% of seeds have changed from green to light tan – brown. At this stage seed moisture is 30%. <i>If application is made too early, seed residues may occur and reduce quality of seed and yield.</i>	<ul style="list-style-type: none"> • Apply when 80-90% of seed on whole plant have turned tan. Note this is later than when 75% of seed on main stem has changed colour. • Applying in evening or on cloudy days allows time for product to spread over surface of leaf and stems. • Consider using higher rate with dense crop canopy to high weed pressure.
Rainfast	6 hours	15 minutes