



# PRE-HARVEST INTERVALS



Sheri Strydhorst, PhD, PAg  
Sheri's Ag Consulting Inc.

While Alberta farmers are still at the protecting yield stage through control of early weeds as they receive this issue of *Pulse Crop News*, it's important to keep finishing well in mind also. As a reminder and guide to the application of late season integrated pest management, Dr. Sheri Strydhorst has created a quick reference guide for pulse farmers to consider.

## Understanding and complying with Pre-Harvest Intervals (PHIs) are critical for safe pulse crop production.

**WHO?** All pulse growers who use pesticides. It is particularly important for pulse growers who need to spray herbicides, fungicides or insecticides later in the growing season.

**WHAT?** The PHI is the MINIMUM amount of time between applying a pesticide and swathing or harvesting the crop. The PHI is based on the label rates, number and timing of applications. Pesticides applied at incorrect growth stages can result in the plant being unable to adequately metabolize the pesticide resulting in pesticide residues being found in the harvested grain.

**WHEN?** The PHI varies with product, crop type and pesticide formulation. Examples of various fungicide, herbicide and insecticide PHIs are listed in these tables. Products with long PHIs (30 days or more) should be carefully considered if harvest is anticipated in early August as there could be restrictions on pesticides applied in late June or early July.

PRE-HARVEST INTERVAL FOR VARIOUS PULSE FUNGICIDES			
30-DAY PHI	21-DAY PHI	15-DAY PHI	14-DAY PHI
<ul style="list-style-type: none"> <li>• Delaro® 325 SC on <i>dry pea, chickpea, lentil, faba bean</i></li> <li>• Headline® EC on <i>dry bean, faba bean, lentil, dry pea, chickpea</i></li> <li>• Lance® AG (Lance® WDG + Headline® EC) on <i>dry bean, faba bean, lentil, dry pea, chickpea</i></li> <li>• Miravis® Neo 300SE</li> <li>• Priaxor® on <i>dry bean, faba bean, lentil, dry pea, chickpea</i></li> <li>• Quilt® on <i>dry pulses and soybeans</i></li> <li>• If swathing or harvest is intended on August 15, you cannot spray after July 16.</li> </ul>	<ul style="list-style-type: none"> <li>• Cotegra®</li> <li>• Headline® EC on <i>soybean</i></li> <li>• Lance® WDG on <i>dry bean, chickpea, lentil, dry pea</i></li> <li>• Lance® AG on <i>soybean</i></li> <li>• Priaxor® on <i>soybean</i></li> <li>• If swathing or harvest is intended on August 15, you cannot spray after July 25.</li> </ul>	<ul style="list-style-type: none"> <li>• Elatus®</li> <li>• Quadris®</li> <li>• If swathing or harvest is intended on August 15, you cannot spray after July 31.</li> </ul>	<ul style="list-style-type: none"> <li>• Proline® GOLD on <i>dry bean, faba bean, lentil, dry pea, chickpea</i></li> <li>• If swathing or harvest is intended on August 15, you cannot spray after August 1.</li> </ul>

You may need to select a different fungicide based on the PHI and the time from fungicide application to swathing or harvest. In years when an early harvest is anticipated, it is best to err on the side of caution and use a product with a shorter PHI. Early harvests are also often associated with heat and drought stress, conditions which may not favour disease development. Therefore, use of a fungicide under these conditions should be carefully assessed.

In a situation where maturity advances more quickly than anticipated, harvest will simply need to be delayed. For example, if a fungicide with a 30-day PHI was applied on July 16 and the crop is ready to harvest on August 10, swathing and/or harvest must be delayed until August 15 to ensure compliance with the PHI timing.

PRE-HARVEST INTERVAL FOR VARIOUS PULSE PRE-HARVEST HERBICIDES		
DIQUAT ION	SAFLUFENACIL	GLYPHOSATE
<ul style="list-style-type: none"> <li>Reglone® Ion</li> </ul>	<ul style="list-style-type: none"> <li>Heat® LQ when used as a harvest aid or pre-harvest treatment for weed management</li> </ul>	<ul style="list-style-type: none"> <li>RoundUp®</li> </ul>
<ul style="list-style-type: none"> <li>Harvest can normally commence within 4-10 days after desiccation</li> </ul>	<ul style="list-style-type: none"> <li>3-day PHI on lentil, dry pea and soybean</li> <li>2-day PHI on chickpea, dry bean and faba bean</li> </ul>	<ul style="list-style-type: none"> <li>7-day PHI</li> <li>Apply only 7 – 14 days before harvest to ensure best weed control and to maximize harvest management benefits.</li> <li>Earlier application may reduce crop yield and/or quality, and may lead to excess glyphosate residues in the crop.</li> </ul>
<ul style="list-style-type: none"> <li>Late fall applications, under wet cool conditions and high humidity will delay product activity.</li> <li>Harvest can start when plant material is dry and the seed moisture level allows for efficient harvesting.</li> </ul>	<ul style="list-style-type: none"> <li>If this product is tank-mixed with glyphosate, then harvest should be delayed for a minimum of 7 days.</li> </ul>	<ul style="list-style-type: none"> <li>Preharvest glyphosate should be applied only AFTER the least mature part of the field has reached 30% seed moisture content.</li> <li>Many buyers will not accept pulse crops treated with pre-harvest glyphosate. Check with your grain buyer BEFORE applying.</li> </ul>





## The PHI for insecticide applications on pulse crops

If it is necessary to spray for late season lygus, pea aphid or grasshoppers, the following PHIs must be complied with. Be sure to use the correct PHI for each insecticide, based on the crop it is applied to.

PRE-HARVEST INTERVAL FOR VARIOUS PULSE INSECTICIDES						
30-DAY PHI	21-DAY PHI	14-DAY PHI	7-DAY PHI	5-DAY PHI	3-DAY PHI	1-DAY PHI
<ul style="list-style-type: none"> <li>• Cygon® 480 EC on soybean</li> </ul>	<ul style="list-style-type: none"> <li>• Sivanto® Prime on dry soybean</li> <li>• Movento® 240 SC on soybean</li> </ul>	<ul style="list-style-type: none"> <li>• Malathion 85E on lentil</li> </ul>	<ul style="list-style-type: none"> <li>• Decis® 100 EC on most dry pulses except soybean</li> <li>• Movento® 240 SC on most dry shelled pulse crops</li> <li>• Sivanto® Prime on most dry pulse crops</li> </ul>	<ul style="list-style-type: none"> <li>• Sevin® XLR on beans</li> </ul>	<ul style="list-style-type: none"> <li>• Malathion 85E on field pea</li> <li>• Sevin® XLR on peas</li> </ul>	<ul style="list-style-type: none"> <li>• Coragen®</li> <li>• Coragen® MaX</li> </ul>

### The PHI for tank-mixes

Always choose the longest PHI of all pesticides used in a tank-mix. If one pesticide has a PHI of three days and the tank-mix partner has a PHI of seven days, the field cannot be swathed or harvested for at least seven days.

### PHIs do not shorten with storage

The PHI will not be shortened for crops that are in storage for extended periods of time or crops that will be processed.

**WHY?** Compliance with PHIs is a legal requirement to ensure that pesticide residues do not exceed the maximum residue limits (MRL), established by the Food and Drugs Act (FDA). Under the FDA, the Canadian Food Inspection Agency is responsible for monitoring and enforcement to prevent the sale of food containing excessive pesticide residues.

If your pulse crop is found to have residue levels which exceed the

MRLs, this is a violation of the FDA. In these situations, the grain could be seized, destroyed or forbidden for export. Failure to comply with PHIs could lead to unacceptable risk to consumers and financial loss for the grower.

**HOW?** PHI information for specific pesticides is found on pesticide labels, the Keep it Clean website and in the Alberta Blue Book.



APG's bylaws, regulation plan and marketing plan have all been approved. Growers can learn more at <https://albertapulse.com/about-us/> or scan the QR code.