## Herbicide Carryover



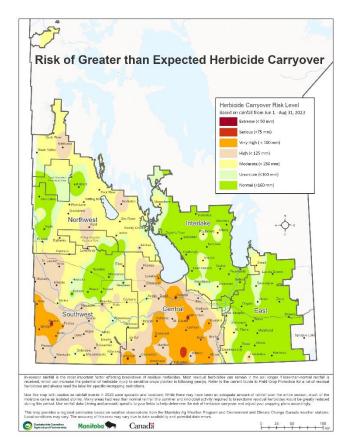
## **Herbicide Carryover**

Crop rotations must take herbicide carryover into consideration and must follow label recommendations or risk crop injury. If changes are made to a planned crop rotation farmers need to be aware of the risks of herbicide carryover, particularly following a dry year. The most important factor affecting breakdown in soil is rainfall after herbicide application. If your crop land received less than the normal amount of precipitation in the previous growing season then its at higher risk of residual herbicide persistence and potential crop injury.

Recropping information can be found on all herbicide labels as well as the product pages in the <u>Guide to Field Crop Protection</u> or hard copies available at <u>Manitoba Agriculture Service Centres</u>. Refer to the Soil Residual Herbicide section of the guide and consult the Recropping Restrictions for Residual Herbicides table. In addition to listing the recropping interval for registered crops some herbicides state the recropping interval must be extended if inadequate rainfall occurred during the growing season when that herbicide was applied. For example, herbicides containing clopyralid, flucarbazone, imidazolinones and pyroxasulfone have additional recropping restrictions.

The maps below show the risk of herbicide carryover based on the total accumulated precipitation for the period June 1- August 31 (Figure 1) and for the entire growing season from May 1- September 30 (Figure 2). Check your records as rainfall events are not uniform across a region and if possible use rainfall amounts specific to your fields. The period from June 1- August 31 is the most crucial for determining herbicide carryover as during this time precipitation and soil temperatures contribute the most to herbicide breakdown. Moisture received after September 1 does little to assist herbicide breakdown because soil temperatures are cooling and microbial degradation of herbicides is slow. If precipitation and soil temperatures were less than normal, or if herbicides were applied late during the growing season there is increased risk of herbicide carryover and following crops must be grown according to the most restrictive label requirement.





Risk of Greater than Expected Herbicide Carryover

Herbicide Carryover Risk Level

Based on mindal from May 1 - Sept 30, 2023

Extreme (< 50 mm)

Very high (< 100 mm)

High (< 125 mm)

Mocirate (< 150 mm)

Uncertain (< 160 mm)

Normal (>100 mm)

Figure 1. Herbicide Carryover Risk June 1 – Aug. 1

Figure 2. Herbicide Carryover Risk May 1 – Sept. 30

## **Contact Us**

This article was developed by the Manitoba Agriculture Weeds Specialist.

For more information contact the department:

Online: www.manitoba.ca/agriculture

Email: <a href="mailto:crops@gov.mb.ca">crops@gov.mb.ca</a>
Phone: 1-844-769-6224