

Benefits of a Pre-harvest Application

A pre-harvest application of Roundup Transorb® HC or Roundup WeatherMAX® herbicide can help growers address many challenges that they may be faced with as they prepare for harvest.

Perennial Weed Control

Perennial weeds are formidable crop competitors, consuming moisture and nutrients from your fields throughout the season. This is especially true in years where crops may not have had the ability to out-compete weeds throughout the season.

Pre-harvest is the best time to control Canada thistle, quackgrass, perennial sow thistle, dandelion, toadflax and milkweed.

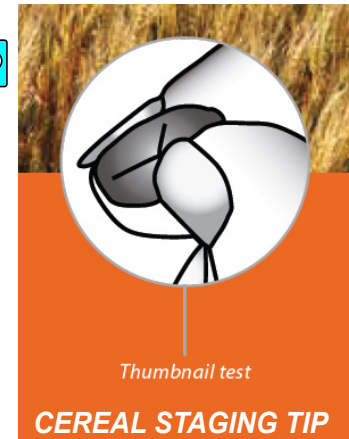
Ensure proper weed staging; dandelions should be at the bud to bloom stage and Canada thistle at bud or beyond. In all cases, the leaves of the target weeds should be green and actively growing at the time of application.



Crop Staging is Critical

Physiological maturity is the key for timing a pre-harvest glyphosate application. Physiological maturity is reached once seed moisture content is less than 30%. The following table provides visual indicators of physiological maturity:

Crop	Visual test for 30% moisture content
Wheat, barley, oats	Hard dough stage; thumbnail impression remains on seed
Canola	Pods are green to yellow; most seeds are yellow to brown
Flax	Majority (75 to 80%) of pods are brown
Peas	Majority (75 to 80% of pods turned colour
Lentils	Lower pods (15%) are brown; seeds rattle
Dry beans	Stems are green to brown; pods are mature (yellow to brown); 80-90% leaf drop (original leaves)
Soybeans	Stems are green to brown; pod tissue is dry and brown; 80-90% leaf drop
Forage	3 to 7 days before last cut in final year of stand



Application Rate

The **ONLY** registered pre-harvest rate of Roundup Transorb HC or Roundup WeatherMAX herbicide is **0.67 L/ac**. An application greater than 0.67 litres per acre risks exceeding the MRL (maximum residue limit) which can result in lost market options, both domestic and export. MRLs are established by Health Canada as part of the assessment process prior to the registration of a pesticide and are regulated by the Pest Control Products Act¹. **Spray on label** to ensure you do not exceed the MRL.

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Best Management Practices:

Water volume:

A minimum 5 gallons per acre is required to penetrate the crop canopy and to ensure good coverage of the weeds and the crop. Use up to 10 gallons of water per acre when the crop canopy is heavy or if your target weeds are sheltered by the crop - especially important when targeting dandelions.

Livestock feed:

Crop that have been treated with Roundup Transorb HC or Roundup WeatherMAX herbicide in a pre-harvest application can be fed to livestock. Allow seven days between application and grazing to allow the glyphosate to translocate within the target plants. Stubble may be grazed immediately after harvest.

Crops for seed production:

Pre-harvest applications are not recommended on crops grown for seed, as a reduction in germination may occur. Pre-harvest applications for lentils, malt barley, and in some cases oats, need approval from the grain buyer.

Straight cut recommendations:

Swathing can be eliminated when a pre-harvest herbicide application is used on wheat, barley, oats, peas and flax. The crop can be straight cut 7 days after application.

If swathing after a pre-harvest treatment, wait 3 full days (72 hours) after application to allow thorough translocation for long-term weed control.

Tank-mix options:

Heat® LQ herbicide is now registered as a pre-harvest tank-mix option with Roundup Transorb HC or Roundup WeatherMAX on canola, dry common beans, field peas and soybeans. More information on this registration can be found at agsolutions.ca/HeatLQPreHarvest.

Summary

A pre-harvest weed control application is an excellent management strategy to not only control perennial weeds, but to facilitate harvest management and get a head start on next year's crop. For more information on pre-harvest applications, or to download our **Preharvest Staging App**, visit Roundup.ca/en/preharvest. For technical support, contact Monsanto's CustomCare® line at 1-800-667-4944.

Source: ¹Health Canada (2012). Maximum Residue Limits for Pesticides. Verified (July 25, 2014) www.hc-sc.gc.ca

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Tank mixtures: The applicable labeling for each product must be in the possession of the user at the time of application. Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture. Monsanto has not tested all tank mix product formulations for compatibility or performance other than specifically listed by brand name. Always predetermine the compatibility of tank mixtures by mixing small proportional quantities in advance. CustomCare®, CustomCare and Design®, Monsanto and Vine Design®, Roundup Transorb® and Roundup WeatherMAX® are registered trademarks of Monsanto Technology LLC, Monsanto Canada, Inc. licensee. All other trademarks are the property of their respective owners. ©2015 Monsanto Canada Inc.

