

2008

# Getting the most out of herbicide-tolerant corn



## Overview

Herbicide-tolerant (LibertyLink® or Roundup Ready®) corn gives growers the ability to spray broad-spectrum, non-selective herbicides like Liberty® or Roundup post-emergently on their corn. Neither of these

herbicides offer any soil residual activity. Because of this, growers will either delay spraying until later stages (allowing weeds to compete with and rob yield from the corn crop) or plan on making two applications in crop.

## A one-pass alternative to two applications of a Roundup brand agricultural herbicide

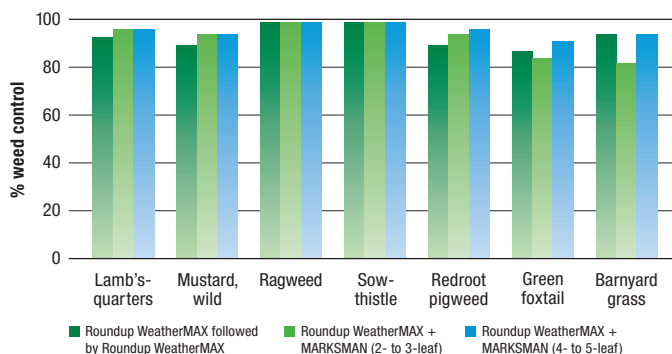
“A single application of MARKSMAN + Roundup WeatherMAX on Roundup Ready Corn 2 is an effective program to optimize weed control during the critical weed-free period, thus protecting the hybrid’s full yield potential.”

Peter Sikkema, Weed Scientist, Ridgeway College, University of Guelph

## Optimizing the power of the tank-mix

Research shows that a single herbicide application of MARKSMAN® + Roundup WeatherMAX at the 2- to 5-leaf stage of crop development provides similar crop protection to two applications of Roundup WeatherMAX (Figure 1). This application window maximizes the control of tough weeds offered by a slightly later spraying. Similar results have been observed with PROWL® or MARKSMAN tank-mixed with Liberty.

Figure 1. Maximum weed control



A single application of a tank-mix of MARKSMAN + Roundup WeatherMAX (1.0 L/ac or 2.5 L/ha each) at either the 2- to 3-leaf stage or the 4- to 5-leaf stage of development compared to two applications of Roundup WeatherMAX (applied at the 2- to 3-leaf stage and 6- to 7-leaf stage of crop development at 1.0 L/ac or 2.5 L/ha).



Roundup WeatherMAX 1.0 L/acre, 4-leaf corn  
Source: London, ON 2005



MARKSMAN (1.0 L) + Roundup WeatherMAX 1.0 L/acre, 4-leaf corn

The weed-stopping advantage of the tank-mix translates into crop yield. One application of the MARKSMAN + Roundup WeatherMAX tank-mix delivered comparable yield to two applications of Roundup WeatherMAX (Figure 2).



**Figure 2. The yield benefits of one pass of MARKSMAN + Roundup WeatherMAX**

	Yield (bu/acre)	Value (\$/acre)*	Chemical Cost	ROI (acre)
Check	89.5	\$268.50	\$0	\$268.50
1 Roundup WeatherMAX Application	135.9	\$407.70	\$16	\$391.70
2 Roundup WeatherMAX Applications	148.6	\$445.80	\$32	\$413.80
1 MARKSMAN + Roundup WeatherMAX Application	151.1	\$453.30	\$26	\$427.30

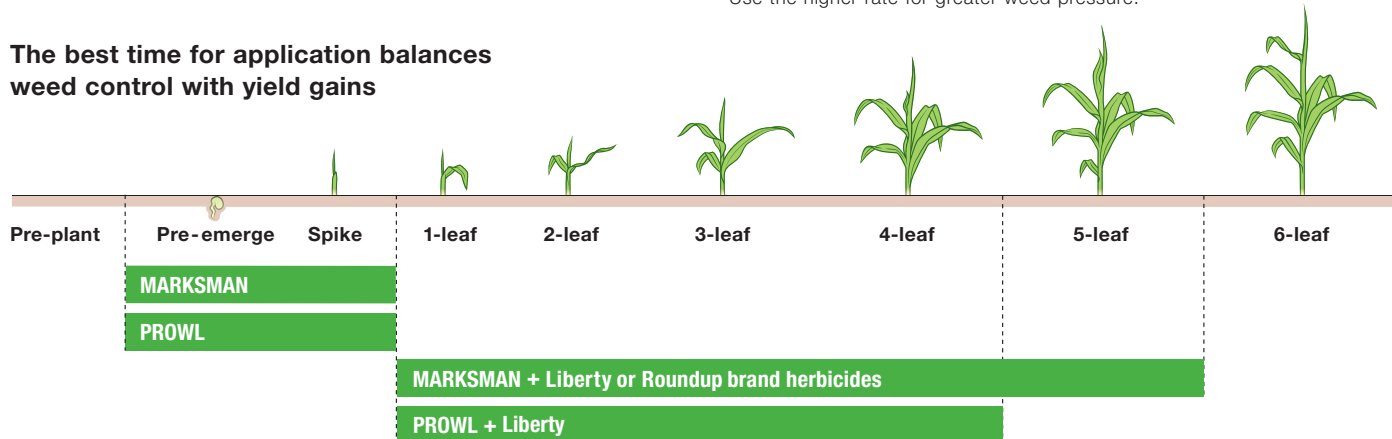
Source: University of Guelph and Ridgetown College, 1998-2004, 4 trials.  
\*Yield \$/acre is based on \$3/bu.

### The benefits of MARKSMAN or PROWL with Liberty or Roundup brand herbicides

This approach to weed control provides one-pass convenience while providing the crop protection equivalent of two applications of Liberty or Roundup brand herbicides. The tank-mix offers these benefits:

- Time saved by avoiding two applications. The MARKSMAN or PROWL component provides proven residual broadleaf or grassy weed control throughout the critical weed-free period. This will allow the corn to achieve its full potential.

### The best time for application balances weed control with yield gains



For more information about MARKSMAN or PROWL, call **AgSolutions®** by BASF at 1-877-371-BASF (2273) or visit our website at [www.agsolutions.ca](http://www.agsolutions.ca)

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- It's an important element of long-term weed-management stewardship. The MARKSMAN or PROWL tank-mixes leverage the multiple modes of action provided by Groups 4 and 5 (MARKSMAN) and Group 3 (PROWL) chemistries.

### What MARKSMAN adds to the mix

- Broad-spectrum with soil residual weed control that protects the crop through the critical weed-free period, without a second herbicide application
- Proven crop safety and exceptional follow-crop flexibility that ensures that neither this year's nor next year's crop will be harmed
- Triazine-resistant broadleaf control

### What PROWL adds to the mix

- Proven crop safety and excellent residual control of annual grasses and selected broadleaf weeds

### Getting the most from MARKSMAN or PROWL

Based on the most current research, below are the recommended MARKSMAN and PROWL tank-mixes.

#### Creating the tank-mix for your needs

Tank-mixes	Rates
MARKSMAN + Roundup WeatherMAX	1.0-1.5* L/acre (2.5-3.7* L/hectare) 0.68 L/acre (1.7 L/hectare)
MARKSMAN + Liberty	1.0-1.5* L/acre (2.5-3.7* L/hectare) 0.6-1.0 L/acre (1.5-2.5 L/hectare)
PROWL + Liberty	1.0 L/acre (2.5 L/hectare) 0.6-1.0 L/acre (1.5-2.5 L/hectare)

\*Use the higher rate for greater weed pressure.

