



Optimum[®] GLY: New trait puts new power in canola

There is a lot to consider when you buy canola seed. You check everything from a hybrid's disease package, its straight cut potential, days to maturity, yield potential and, increasingly, its herbicide tolerant trait package.

Herbicide tolerant technology traits have changed the game when it comes to canola, helping farmers achieve better weed control and higher yields, among other things. The latest entry is Optimum GLY – an advanced herbicide-tolerant trait technology in canola from Corteva Agriscience.

Optimum GLY gives farmers the ability to increase glyphosate rates, widen the herbicide application window and control a broader spectrum of weeds than other glyphosate-tolerant canola systems. And that's the key – Optimum GLY is different because it works differently to put more growing power into farmers' hands.

What makes Optimum GLY different?

Glyphosate is a non-selective herbicide designed to control green plant material. It does that by shutting down a plant's EPSPS enzyme, an enzyme that produces three amino acids critical to plant growth and survival.

Glyphosate tolerant technologies like TruFlex™ and Roundup Ready® use a gene that blocks the native EPSPS enzyme and replaces it with a transgenic EPSPS enzyme. The tolerant canola uses this altered enzyme to continue producing the amino acids it needs to keep growing.

The Optimum GLY trait does something different – it enhances an enzyme called the glyphosate acetyltransferase, or GAT – an enzyme that breaks down glyphosate as soon as it enters the plant, converting it to an inactive form. The native EPSPS enzyme continues to function as usual, producing the amino acids Optimum GLY hybrids need to grow and thrive.

The strength of this trait is that it is expressed throughout all parts of the plant – roots, stems, leaves and even early flower tissue. But the key benefit is that the Optimum GLY trait allows higher rates of glyphosate without compromising crop safety and yield potential.

More control, more weeds, more time

With Optimum GLY's higher glyphosate rate, you can go after a wider range of weeds, including tougher-to-control ones like wild buckwheat and Canada thistle, and get better control of those weeds, which should mean fewer seeds in the weed seed bank.

And you can spray the rate you want at the time you want depending on weather conditions and what's happening in the field. With Optimum GLY canola hybrids, you can apply up to 2 L/ac Relative Equivalent Litre (REL) of glyphosate per season, from cotyledon to first flower. While this is a much higher rate than Roundup Ready canola, it's safe on the crop because the Optimum GLY trait essentially deactivates glyphosate within the plant.

So, if you were unable to get a fall residual herbicide down, or spring was too cold to go in with a good pre-seed burn, with Optimum GLY canola hybrids, you can safely apply the full 2 L/ac REL of glyphosate in one application (emergence up to 6-leaf) and get that field cleaned up properly through critical weed-free period.

Or let's say you did get a good pre-seed burn, but now weeds are coming up with the crop. With Optimum GLY canola hybrids, you can apply up to 1 L/ac REL twice. The first application of glyphosate should be applied in the critical weed-free period,

then go back later with another litre per acre to clean up any late weed flushes, right up to first flower (second application must be at least 14 days after the first).

This flexibility in timing, broader spectrum weed control and improved crop safety mean Optimum GLY can play a foundational role in your integrated weed management program.



Backed by Corteva Agriscience

Researchers at Corteva Agriscience have built the Optimum GLY trait canola system from the ground up. It's backed by 15-plus years of research, has received global registration and has proven itself over and over, both in thousands of research and development plots and in extensive stewarded trial locations sites throughout Western Canada.

The Optimum GLY trait is a powerful new tool for canola growers – it puts more control in your hands, more power in your canola.

To learn more visit optimumgly.ca.