

Project No.: YP 1 04

Project Title: Controlled Traffic – Grass Control in Wheel-tracks

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Executive Summary

Many growers are adopting controlled traffic farming to reduce soil compaction and improve overall operating efficiencies. One facet of CT is the use of ‘tramlines’, in which machinery follows a predetermined path in the paddock.

Whilst this has the advantage of reducing traffic across the paddock, it may also lead to weed problems in the tramlines themselves. Standard in-crop chemical inputs fail to provide long term control. A solution to this problem is to spray residual chemicals with shielded sprayers post sowing or during the sowing operation on the tracks.

Two years of trials has determined the most cost effective chemical control. Simazine (3 l/ha) controlled 74% of the ryegrass present for an estimated cost of \$1.77/ha. Dual Gold (2 l/ha) controlled 88% of the ryegrass present for an estimated cost of \$6.40. Both options increased control of ryegrass when Goal (500 ml/ha) was added for an extra cost of \$2.00/ha. While the level of control is valuable, follow-up weed control later in the season is required with paraquat or glyphosate to achieve 100% control.

The risk of lateral movement of chemical into the “edge” row of the wheel track is a concern. Possible crop damage with Simazine and Dual Gold is understood and documented. Effects of lateral movement into the ‘edge’ row was not observed in these trials.

The fear of ryegrass “blow-outs” from tracks is a major factor restricting adoption. The extra workload associated with weed management in tracks is also a justifiable concern. This has limited the development of wheel-tracks as a form of guidance.

A significant reduction in the cost of GPS guidance units has resulted in many farmers having units in machinery. This has superseded the need for tracks as a form of guidance somewhat. Once machinery is matched, many growers use ‘old’ tracks from previous paddock treatments, after having set the first tracks with sub metre GPS units. This has reduced the need for permanent wheel tracks.