

Farming sustainably – Future systems for intensive cropping

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Take home messages

- ❖ Fully integrated controlled traffic is a challenge with current machinery.
- ❖ Simple steps can be taken to make a start towards a controlled traffic system.
- ❖ Accurate paddock maps for guidance A-B lines are essential for implementation of full or seasonal controlled traffic.
- ❖ A clear objective is needed to assist decision making in the establishment of controlled traffic.

Introduction

There are many benefits of controlled traffic, and rising interest within the vegetable industry, although implementation on farm is a challenge. This is largely due to the incompatibility of working and track widths across the current equipment range. This project set out to establish, as effectively as possible, a controlled traffic (CTF) system within the constraints of a commercial farming operation and equipment suite. The project extended the on-farm demonstration of CTF started in an earlier project at Gawler.

Objectives

The project objectives were to: i) demonstrate the on-farm application of controlled traffic farming in intensive vegetable cropping; ii) build capacity and encourage uptake of CTF through direct involvement of collaborators; iii) measure soil health and production changes on-farm directly attributable to CTF; and iv) communicate soil health and production benefits of CTF in intensive cropping.

Methods

Onion, potato, poppy and carrot crops were grown. A 1.6 m track width CTF system was maintained for 18 months from pre-onion tillage to potato harvest. Seasonal CTF was maintained from potato harvest until after poppy harvest, at which time tractor configurations were changed to 2 m track width.

Results

Improvements were observed in fuel use, soil conditions and infiltration early in the project. Benefits diminished in the latter stages of the project due to a number of incompatible machine configurations and the change to 2 m track widths.

Discussion

The project showed that even if full CTF is difficult with current machine configurations, some benefits can be obtained from the use of seasonal CTF. The experiences of the project were used to write a set of “CTF adoption guidelines”.

Funding and project duration

National Landcare Program and Caring for Our Country through Cradle Coast Natural Resource Management

- Jul 2008–Jun 2011

Technology transfer and publications

- Four farm walks
- One industry forum
- Two newspaper/magazine articles

Additional collaborators

- John McKenna



The impact of traffic management on rainfall run-off.