

Controlled Traffic Farming on Yorke Peninsula

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LOCATION

Minlaton, Yorke Peninsula 400mm Rainfall

SOIL

Sand over Clay/Grey Mallee/Sandy loam to loam over Limestone

ENTERPRISE

Cropping/Sheep 80%/20% with sheep run in stubbles.

BACKGROUND

No tilling for 8 years with knife points on 9" spacings using an 11.2m John Shearer Universal Bar with a 280hp FWA tractor on singles.

4 years ago implemented Controlled Traffic over all cropping ground after a bus trip to Northern NSW.

Using 2 home made marker arms

Pulled up two tynes at 2m spacings in Air Seeder bar and blocked the hoses.

Purchased new 4 wheel quad Air Seeder box with 2m wheel spacings , That was fitted with 22.4 m urea boom

11.2m Air Seeder/Flat Steel roller/22.4m Spray Unit/Urea Spreader.

2m spacings to match Truck mounted Spray Units – best match for all tractors and machinery.

Reduced the width of our boomspray from 24m to 22.4m.

ADVANTAGES

Up and Back Farming

Convinced it is a better way of farming.

Reduced inputs – no over lap, no head lands. Approximate saving of 4%

Spraying, Seeding, Urea spreading and other operations following tracks – No foam markers are required, driving is done by looking ahead and not sideways.

Night spraying and urea spreading is possible, allowing us to make better use of calmer conditions in our windy location.

Use of wheel tracks for ever increasing number of in crop operations, nutrition, pesticide and fungicide applications with many late in the season.

Increased tractor efficiency from operating on compacted roadways.

Compaction

8 years of no-till and 4years of Controlled Traffic have greatly improved our soil structure water infiltration while virtually eliminating wind and water erosion.

We are compacting our soils by driving on them.

Will Deep soil compaction self repair and how long will it take i.e. is Deep ripping required on sand or is deep tillage necessary on loam soils?

We need to roll lentils/peas and rocks, will this undo CTF compaction gains?

Will our shallow soil that can not store large amounts of moisture, with mostly reliable winter rainfall and cool finishes, produce consistent yield responses from reduced soil compaction levels?

Challenges

Rocks – need to roll lentils, peas, barley. use a 11.2m x 1m flat steel roller.

Need to rock roll in summer when soil dry to reduce soil compaction.

Weeds in wheel tracks

Sheep traffic, increasing compaction and erosion risk in wheel tracks
Getting your head around a new farming system.

FUTURE

Autosteer

Improved Stubble Management – sowing and planting between stubble rows.
Wide rows crops and use of shielded sprayers for inter row weed control ?
Further reduction in inputs.

REFLECTIONS

The operational side of CTF has been a real benefit to our farming system allowing us to perform all operations in a timely manner, night or day with no guidance and stress, while reducing costs of both inputs and machinery

Weeds in the wheel tracks, mainly ryegrass, is the major problem mainly in our dirtier and sandier paddocks, with most solutions adding expense and time consuming.

The reduction of compaction side of CFT is harder to quantify with our climate of mainly winter rainfall and cool finishes and our shallow soils that can store limited amounts of moisture But I am confident that along with No-till our soils are in much better condition and the rainfall is staying where it falls and being used. This was evident last year with a long dry finish after a fairly wet winter the crops finished with a good sample and good yields.

CFT along with No-till, Rotations, Nitrogen management etc. are all contributing to a profitable and robust farming system able to better deal with variability's of our climate.