

# Controlled Traffic Farming in Central Queensland

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## INTRODUCTION

We've all heard about Controlled Traffic Farming Systems and how well they work so I'm not here to try to convince anyone just how good it is, but just to share my story and the experiences I have had along the way.

I'm not necessarily a good farmer and what I do is not necessarily right, but what I do is working extremely well for me, putting more grain in the bin and more money in the bank.

## FARM PROFILE

My family history on the land dates back to the 1800s, Cattleman until the 1960s when Dad started farming. I have always enjoyed this rural business and today my wife and four children, are all involved in the family business.

I own a mixed cattle and cropping enterprise based near Duaringa, in Central Queensland, 120 km west of Rockhampton. Although we produce both beef and grain the two are kept very separate with no cattle ever allowed on the farming country.

I farm 2200ha of heavy black cracking clay soils which goes under four metres of water in flood times. The cropping program includes wheat, sorghum, mung beans, chickpeas and corn. No cattle fodder is grown at all. We don't have any problem with weeds that are hard to kill and don't use any fertiliser at all.

Our average rainfall is approximately 675mm or 27in.

## INITIAL STEPS

I started planting up and back in rows in the 1980s and was using some minimum till practices. I realised I had a problem with soil compaction. The four wheel drive tractor was leaving big tracks, then I started to put the implement deeper which made it harder to pull and caused more wear and tear. I woke up one day and suddenly realised "this is bloody ridiculous".

In 1998 I stopped ploughing, bought a spray rig and within twelve months, had totally adopted a zero till and a Controlled Traffic Farming System.

## PLANNING

Sound professional advice is readily available so took advantage of it. When you think that its too difficult, just remember that its all been done before. You do not need to spend a lot of money to change old habits successfully.

I modified the spray rig tractor, spreading both front and back wheels to 3 metre centres. Then I bought a spray rig with 21.5 metre boom with 3 metre wheel centres. The harvester front is 10.75

metres. I regard the harvester as the most important link in the chain. The four wheel drive tractor I use was converted from dual wheels to single wheels on 3 metre centres.

I made marker arms for the planter to mark the initial lines and only needed to use these for one season.

My planter width is 21.3 metres and for the past nine years I have used only one implement to plant five different crops. This year I made a precision planter for summer crops. I still use the same air seeder for winter crops. The planter wheels are purposely not matched to the tractor wheels.

Where I had previously planted 105 rows of summer crop I now plant 12 rows 180cm apart and plant my winter crop 46 rows 46cm apart. I have noticed significant yield increases. There are two narrower rows in the centre of summer crop to define the wheel tracks. The winter crop is planted with wider rows in the wheel tracks to define the wheel tracks. I double the seed population in the rows each side of the wheel tracks by putting two planter hoses to one tine. This prevents green strips in these rows come harvest time.

## **MACHINERY**

I don't believe that you need to spend a lot of money on tractors and machinery to get started. My tractor and two planters are both well over 20yrs old. My tractor does approximately 250 hours per year.

The chaser bin and tractor are both on 3 metre centres and but are not used in the paddock, only on the headlands. The larger capacity header works well for longer runs and higher yields. I have fitted larger nozzles behind the wheel tracks of the spray rig to better target damaged weeks.

## **AUTO STEER AND TECHNOLOGY**

Self steer systems are very good but not essential. I feel that Controlled Traffic Farming is the most important system.

The 400hp tractor is fitted with a 2cm self steer guidance system. The self propelled spray rig is fitted with the same system and has direct injection. Both of these have variable rate technology if I choose to use it.

Satellite imagery is very useful but very expensive. Contour mapping is useful for farm layouts. Using this technology, I have been able to drain the wetter areas in the paddock to the well drained areas not necessarily off the paddock. I have also put roads in for better access, using this information.

## **BENEFITS**

With the use of Controlled Traffic Farming I have much more family time and far less stress. The reduction of fuel use from 60 litres per hour to 30 litres per hour. The tractor now runs on 4 tyres instead of 8 tyres. The shift work has stopped and so has the banging and clanging in the shed at all hours. No overlap means there are the big savings on chemical, seed and other inputs.

Because some of the changes are so great some people in the area may think you've lost the plot. They soon look over the fence and start asking questions and say things like "you must have had more rain" when really it's the improved farming methods, improving the soils, etc that makes the difference.

## **WHAT'S NEXT?**

- The use of volunteer sorghum as ground cover and spraying out later than previously done.
- Automatic data collection to download data from the computer in the tractor and sprayer to the computer in the office.
- More efficient use of chemicals by band spraying over plants or between plants.
- Greater water use efficiency by increasing ground cover, altering row configuration, populations and other agronomical issues.
- Return of average rainfall years and higher grain prices.