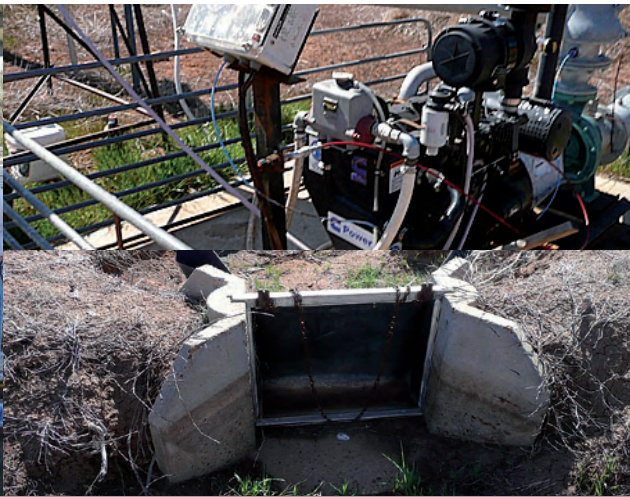


Adapting to a better tomorrow



Mark Cameron & Jason Mitchell

Carrathool
Murrumbidgee Valley

- > Border check, lasered contour layout, centre pivot
- > Surface water
- > Corn, wheat, barley, peas, canola

“Over a few beers” Mark Cameron and Jason Mitchell found they shared similar goals and after further ‘talks’ decided to pool their resources and strengths. The pair has formed an innovative business partnership to farm Mark’s property *North Groongal* at Carrathool. Mark is a third generation farmer in the district, who had recently taken ownership of *North Groongal* and Jason is an agronomist, who has had many years experience managing large cropping properties.

“General security water allocations may be more variable in the future so we have to have a farming system that can reflect that. We have to have a business structure that minimises our risk yet is able to respond quickly when opportunity arises,” Mark said, indicating the importance of flexibility to their business.

At 100% water allocation, *North Groongal* has 4 ML/ha available. Mark and Jason are developing their business around a long-term average of 2 ML/ha.

“We have to put ourselves in a position to take advantage of any drop of water we receive, whether rainfall or irrigation, so all our operational plans are based on that premise,” Jason said.

Addressing all levels of production

Starting at the ground level, Mark and Jason are developing paddocks for quick watering both as border check and ultimately raised beds. They feel beds offer greater flexibility within their system, particularly when it comes to a range of summer crops, including soybeans, corn and cotton. With low water allocations, the cropping program is based on winter crop, including wheat, barley, peas and canola. They however

keep their options open and they are able to double crop if the opportunity arises.

Within the paddock, they are looking at all angles to increase their water use efficiency. Continual on-farm research and trial work is being done on crop rotations, fertiliser management (including applications and timings of trace elements), and soil biology management. Much emphasis is being placed on direct drilling and stubble retention to increase both the water holding capacity and organic carbon levels of their soils. They believe, in hindsight, that they did themselves a “disservice” by cutting their stubble for straw at the end of the 2006 winter crop season as it has cost them precious soil moisture they could have utilised better in 2007.

Right gear for the job

One of the first steps to achieving their goals was the purchase of a disc seeder that enables them to plant a wide range of crops into varying soil conditions through high stubble loads. The aid of GPS autosteer (to 2 cm) allows even greater flexibility with inter-row planting now possible.

“Basically we can harvest a paddock one day and have it sown the next, giving us the choice of a wide range of crops depending on water outlook and market conditions,” Jason said.

With much of their country now set out to border check, Mark and Jason have been looking at ways to increase water efficiencies. Slopes on the border check layout range between 1:1000 and 1:2000, however they have kept runs at around 400–600 metres. This combined with high flow rates of 15 to 20 ML/day through modified stops allow bays to be



watered in 6–8 hours. To aid water management and prevent overruns they use specially designed ‘beepers’ which alert them over their UHF radios when it is time to change water. All water can be recycled.

In addition to flood irrigation, Mark and Jason have recently bought a 32 ha centre pivot irrigator. They use this over three circles with the idea of growing three winter crops and double-up on one circle with a summer crop. The pivot has only been operational for the past 18 months so hasn’t as yet been used to its potential. Given very little winter or spring rainfall they feel three circles may be too much for the one machine, however they feel it has huge potential “when we learn how to manage it right”. One problem they did experience was the machine shutting down due to fluctuations in channel levels. To combat this they are building a 10 ML storage area at the pump site to act as a buffer.

Spreading risk

With low water allocations their operation is aimed at spreading their risk as much as possible. Cropping programmes are based not only on irrigation allocations but stored soil moisture as well. Also, they feel they are better off aiming for a ‘good’ crop with relative low input rather than a high target crop with very high input costs.

“With our winter crop program we are better off to aim for a 5 t/ha crop over a larger area than an 8 t/ha crop over a smaller area. Not only is it less risky in terms of input costs but net returns are often as good and it makes better use of our available water,” Jason said.

Both Mark and Jason view the present situation of zero allocations and continuing dry conditions as a “hiccup”.

“Whilst we might be pretty disappointed personally about the present drought situation, our business can’t afford that luxury and we have to make adaptations to ensure it will survive tomorrow,” Mark said.

Mark and Jason are setting themselves up to ensure that when the seasons do become more favourable and water is more available they will be ready to take full advantage of the improved conditions.

“General security water allocations may be more variable in the future so we have to have a farming system that can reflect that. We have to have a business structure that minimises our risk yet is able to respond quickly when opportunity arises.”