

Less water, more production & time



Mark & Michele Groat

Griffith
Murrumbidgee Valley

- > Border check
- > Surface water
- > Perennial pastures for lamb production

At the end of 2004, Mark and Michele Groat became concerned about the direction their business was heading. They'd suffered several crop losses on dryland due to the drought, reduced water allocations were limiting their production on the irrigation ground and a long-term lease of a neighbouring property expired.

"We realised our business was in quite a vulnerable position as we'd lost the resource base to recover from the dryland crop failures, and we were restricted by the low water allocations on our remaining irrigation. With the outlook on water allocations looking bleak, we realised we had to do something different," Michele said.

Mark and Michele Groat have been farming their 250 ha irrigation farm *Westray* for 14 years. The farm was initially managed as a "traditional large area MIA (Murrumbidgee Irrigation Area) farm" with the majority of their income (60–70%) derived from rice and the rest made up from winter crop and fat lamb production. Mark, an agronomist before he returned to the farm, saw an opportunity to extend their cropping activities when the neighbouring 140 ha of irrigation and 400 ha of dryland came up for lease. Ideally suited to bed farming, the Groats converted the irrigation portion to beds growing corn, faba beans, canola, wheat and barley.

Time for a new direction

"With the loss of the lease and reduced water allocations, we felt that continual cropping required too much capital being tied up in machinery for our relatively small property size. Increasing our scale meant increasing our risk. We wanted to lessen our exposure to the impacts of low water allocations and still be able

to run a successful business on a farm this size," Mark said.

The couple enrolled in a farm business management and mentoring course. Mark said the course helped them analyse all aspects of their business. Michele credits the course with changing their lives.

"We walked away from our very first session with a completely new outlook. It wasn't all about making money, it was about developing a whole lifestyle to get the most out of the farm," she said.

Mark said all their experience and information-seeking kept pointing towards a system of perennial based pastures.

"We'd already been growing pastures for years and had proven to ourselves the value of a perennial based system given rainfall variability and intensity. Being on irrigation we could essentially have feed almost all year round, allowing us to tap into markets dryland farmers couldn't access when their feed had run out. We had the livestock infrastructure of fences, sheds and yards already in place and required minimal machinery. All this made a pasture based system look even more attractive."

The new system also fitted in well with the Groats' lifestyle. Having four small children, Mark wanted to be "around for the kids" as much as possible – something he'd found quite hard previously when he was continually cropping.

New skills & new farm design

After completing courses on grazing management, livestock handling and livestock trading, and "talking to heaps and heaps of people" the couple sold off most



of their machinery and have almost finished re-developing their irrigation farm. Eighty per cent of the farm has been turned around to border check, with bay sizes of 1.8–2.0 ha and run lengths of 300–400 metres. All bays are set up to handle 15–20 ML/day to be able to water bays in four hours. As water allocations allow, bays will be sown down with either a perennial pasture mix or into annuals such as sub clovers and oats.

“Ultimately everything will be sown to perennial pastures, which have greater root depth to take full advantage of soil moisture,” Mark said.

The Groats have divided the farm into 2 ha grazing areas (basically one bay) divided by an electric fence and stock drinking water piped to each area. The plan is to apply very heavy stocking rates of up to 1000 DSE/ha for a short time (one day) with long rests of 30–60 days (depending on pasture growth rates) between grazings. This will average out at a stocking rate of 20 DSE/ha per year.

Mark said “time controlled” grazing prevents selective grazing and overgrazing, and keeps pastures at growth stages where they will recover quickly. It also enables groundcover to be maintained at 100% at all times, increasing organic matter and providing a better environment to promote soil biology.

An added advantage of moving stock bay by bay, is that watering is done ‘behind’ the mob which minimises soil compaction. This is also the time when the plants are at their shortest so water can be ‘pushed’ through more quickly and efficiently.

“Basically we are aiming for any water applied (either through rainfall or irrigation) to be utilised more effectively,” Mark said.

The couple are trading livestock (mostly cross-bred lambs) rather than breeding.

“This provides us with added flexibility as stocking rates can be matched up with available pasture,” Mark said.

Confident about the future

As yet Mark and Michele haven’t had the opportunity to test the full production potential of their new system, being restricted by low water allocations. However given the 2006 and 2007 allocations of 15% and 5%, respectively, and less than half their average annual rainfall they are still very happy with the direction they are heading.

“On a property our size it’s very hard to make money intensive cropping when your allocation is significantly cut. We lost money in 2004 when our allocation was reduced to 40%. With this new system, we now know we can at least break even at 15% allocation and minimise losses below this,” Mark said.

With an allocation of 60%, the Groats can reach their full production with an annual turnover of 16,000–20,000 head. Feedlotting is also a possibility to ‘finish’ lambs, enabling an increase in the turnover rate on pastures.

The Groats realise they have some challenges ahead but they just can’t wait to see what their business is capable of when water allocations recover!

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