

## Making the most of moisture and spring sowing

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*A wet seepage area with a thick stand of kikuyu and strawberry clover*

Green grass in summer was something unimaginable to Gordon Dodd when he farmed at Kalannie in the NE Wheatbelt. The long, hot and dry summers produced the iconic image of a brown and dusty land.

But after 7 years of ‘semi-retirement’ on the coast he is now surrounded by an oasis of green feed all year round. But it didn’t just happen. By establishing perennial pastures, and a bit of hard work, he has transformed his 700 acre “hobby” farm at Jurien Bay into a showcase of sustainable farming in the West Midlands.

The farm runs along the southern bank of the Hill River about 20 km east of Jurien Bay. The soil is mainly sandy, much of it deep and non-wetting, but with some gravel on the hill tops and clay nearer the river. There are a number of mostly fresh seepage areas as the farm is located relatively low in the landscape.

Gordon started sowing perennial pastures in 2000 following summer rain. He sowed in Autumn and only had a patchy germination. He soon learnt after attending an Evergreen Field Day in 2001 that he should have sown in Spring.

That original autumn sowing, however, eventually came good after some careful management, and now contains a good stand of Tall Wheat Grass in a salty patch, Kikuyu and Strawberry Clover in a seepage area, and Rhodes grass over most of the rest of the paddock.

All sowings since then have been in Spring. This has significantly improved establishment and reduced the lag time until full production is reached.

Gordon has experimented with a number of different machines for sowing perennials including a combine fitted with either knife points, wide points, or discs. For the first sowing, the seed was simply spread on top of scarified ground with a super spreader.

He believes the machine he used in 2006 looks the most promising. It has evolved after a bit of tinkering over the years.

- A set of fairly wide, vertical points are used to push non-wetting sand out of the way to create a furrow.
- A seed tube follows, delivering the seed just in front of a press wheel.
- The seed is pushed into the bottom of the furrow.
- A small amount of soil falls in behind the press wheel covering the seed.
- A row spacing of 14 inches (35cm) is selected by removing every second tyne on the 28 run combine.

A mixture of species is always sown to better account for soil type variation within a paddock and to “have a look” at new species. The better performers so far have been rhodes, gatton panic and signal grass on the well drained sands, kikuyu, strawberry clover and setaria in the wet seepage areas, and Tall Wheat Grass in salty areas. Another species showing some promise is the sub-tropical legume siratro.

Gordon has now planted over 300 acres to perennial pastures but would like to see that rise to at least 80% of the farm, leaving just the gravels for annual sub clover based pastures and the occasional oaten hay crop. Most of the seepage areas



*Successful establishment of sub-tropical grasses in 2006 with furrow sowing*

perennials colonise bare areas (mainly from seed in the cow dung). The well drained sands will continue to be sown to a mix of perennial grasses with an emphasis on Gatton Panic and Rhodes grass.

A flock of self replacing Dorper ewes graze the perennials year round, with the high quality feed allowing Gordon to lamb them down 3 times every 2 years. Gordon believes the extra lamb every 2 years is only possible with the perennial pastures. An un-economic level of grain supplementation would be required if this was attempted on annual pastures.

Trade cattle, mainly light weight ex-pastoral heifers and steers, are also run on the perennial pastures. These animals are grown out for 6 to 9 months before live export. The perennial pastures provide much greater flexibility for buying



*Tall Wheat Grass growing on saline land*



*The over the fence comparison - perennials vs annuals*

and selling times as feed supply is more constant throughout the year. Gordon is not forced into buying in May and June when most other buyers are in the market. He is also not so concerned at selling time if boats are delayed. There is always a paddock with feed in it to keep them happy.

Minimal supplementary feeding is used.

Gordon realises that a productive perennial grass pasture requires a good annual legume companion to provide winter feed and fix nitrogen. Sub clover fails to grow on the deep sandy soils where the perennials grow well so he is looking at serradella as an alternative. Hard seeded yellow and pink serradella is disced into existing perennial grass pastures. A culti-trash drill with only one row of discs is used to cut through the perennials and place the serradella seed in contact with the soil. A following press wheel firms the seed bed.



*A 28 run combine fitted with wide but steep points for furrow sowing*