

David Brownhill

Merrilong Pastoral Company

Getting it right – an Australian Farmers perspective

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Background:

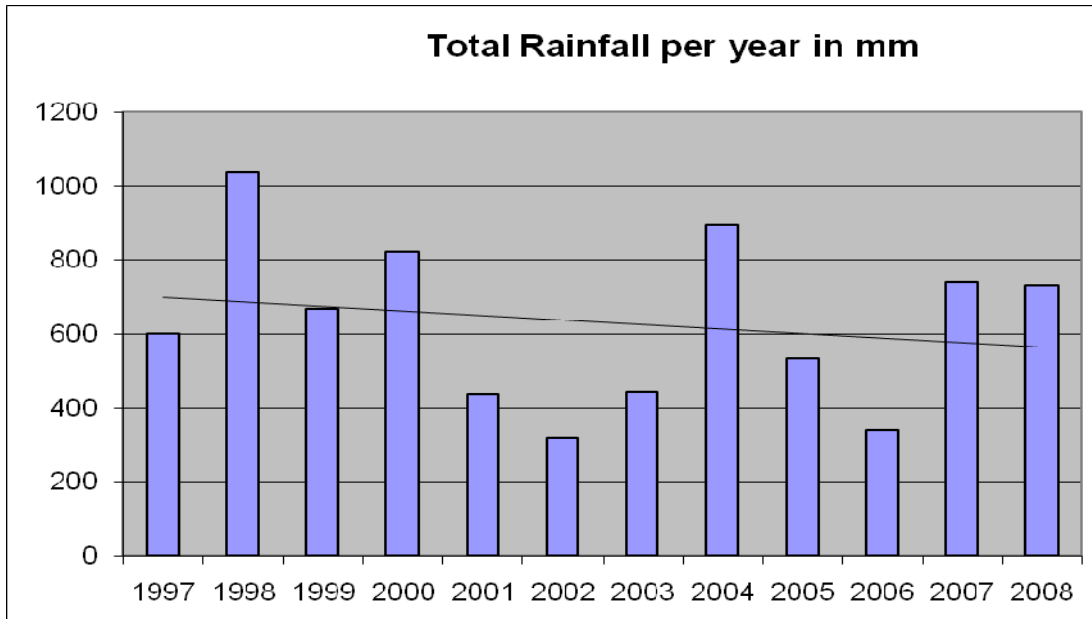
Merrilong Pastoral Company is located 13 km from Spring Ridge in northern New South Wales, Australia. Merrilong Pastoral Company operates 5 properties with the main focus on dryland and irrigated grain production.

Area: Total land area is 4735 hectares, made up of 3000 ha dryland farming
900 ha irrigated farming
835 ha grazing

Location: Merrilong is located on the Liverpool Plains, which covers an area of 1.2 million hectares. The area is serviced by Tamworth, population of 35 000, Gunnedah, population of 9600 and Quirindi, population of 3500. All these towns have schools and agricultural service centers.

Topography: The topography is in two distinct parts, with the first class friable black self mulching Yarraman Creek floodplain giving way to sloping red basalt predominately low grazing hill and slope. The altitude varies from 350 meters to 420 meters above sea level.

Rainfall: Average annual rainfall is 600 mm. Note the variance in annual rainfall and the trend line for the last 12 years.



Irrigation: Merrilong has 4 irrigation allocations totaling 1750 megalitres. Irrigation water is sourced mainly from fully equipped electric bores plus one river licence. All irrigation is now center pivot overhead irrigation. The capacity of each bore is approximately 50000 GPH. All bores are currently in an area known as the Oxley basin.

Crops: Crops grown include bread wheat, durum wheat, barley, chickpeas, faba beans, canola, sorghum, corn, sunflowers, mung beans, and black eye beans. Crops are grown annually in both the winter and summer months, generally on a 50/50 split.

Machinery:

Currently Merrilong has one JD 8330T, one JD 8330 and a 4720 self propelled sprayer fitted with a Weedseeker spray system. (Only sprays green weeds in the fallow), and one 9660 JD header. All the dryland planting is done with a NDF zero till planter for winter crops, with fertilizer, seed and nitrogen all applied in one pass. It has been the objective to minimize equipment required.

We have recently changed the width to 9 meters to suit both the irrigation and the dryland. This was done to include the header in the system and to convert to a controlled traffic system. The row spacing for summer crops will be 75 cm and for winter crops is 37.5 cm. The 9 meter width has enabled the header to be included in the system to reduce the compaction that the harvest operation causes. The sprayer is 27 meters so it will travel on every third tramline. Wheel centers for the tractors are 3 meters and we have fitted self steer to these to help with efficiency and precision of operations.

Grain Storage: Merrilong can store 13,000 tonnes of grain on farm. 9800 tonnes of this storage is owned by Mermell Unit Trust, which is in turn leased by Merrilong on an annual basis. The storage is elevated silos and is all interlinked. The remaining storage is spread over the farms and consists of 5 sheds and fifteen 100 tonne elevated silos

Management: Merrilong is a company structure. The management of the farming company is shared between Gordon and David Brownhill. Gordon has been involved in the business full-time since 1981, David did not join the management team until 1993. There are 4 full-time staff employed by Merrilong. Casual labour is employed where required and contractors are used for specific tasks such as spraying and harvesting. There is a policy in place to involve the staff as much as possible in the decision making process.

Marketing: The approach to marketing depends on the commodity and the risk associated with growing that crop.

The irrigation crops such as gritting maize for human consumption are generally forward contracted 100 % at the time of planting.

Sorghum being the main summer crop is 25 % sold at planting, if the market opportunities are there. By the time harvest is upon us we have sold a further 25 % and then the remainder is stored on farm and marketed throughout the year as

market opportunities arise. Traditionally the lowest sorghum prices are at harvest time.

Wheat and other winter crops that are at risk to weather damage prior to harvest are rarely forward contracted.

Merrilong uses all forms of marketing techniques from the AWB National Pool, the cash market, forward cash contracts, hedge to arrive contracts and futures contracts. Marketing is an essential part of the business.

AMPS:

Merrilong has recently purchased shares in AMPS Commercial Pty Ltd which is a grower group consisting of 24 farms and a production base of approximately 200 000 tonnes of grain per year. Its primary focus is on developing relationships along the marketing chain. Although in its infancy this group has already started to reap benefits through an inputs business, marketing and information dissemination.

Cattle: Merrilong has 550 head of cattle. This operation is mainly a trading enterprise. Cattle are bought and sold depending on seasonal conditions and market signals. Cattle make up 11% of the gross income whilst occupying 19% of the total farm area.

Cropping System: The aim of the cropping system on Merrilong is to maximize moisture use. Through the use of no-till systems water infiltration is maximized. Being on clay-based soils, the aim is to store up to 250 mm of plant available water in the top metre of soil. Once this is achieved we then plant a crop and try and use all available moisture. If we start with a full profile then we can usually grow a crop that will return a profitable yield regardless of in-crop rain.

We have changed our farming system from the 1980's of conventional tillage to the 1990's where no-till began in summer crops to the current decade where it is a full no-till system. Some fields have not been cultivated for 15 years.

A full no-till system has its issues including compaction, weed control, and disease. We minimize all of these through different techniques. Hard to kill weeds are probably the biggest problem with fleabane, milk thistle, bind weed and rye grass the main culprits.

We approach this problem on two fronts: Firstly with the cropping rotation where we can rotate from summer to winter crops and secondly with technology, in this case the Weedseeker. By rotating from one crop to another it enables different chemical group to be used and also through competition we can minimize weed growth.

The use of the Weedseeker, which only sprays green weeds in the fallow can greatly reduce herbicide costs and also allow us to use expensive herbicides on hard to kill weeds as we are only spot spraying the field. We have reduced herbicide usage by as much as 80% in some cases.

By using the Weedseeker is has reduced our reliance on glyphosate and it will help prolong the life of this herbicide.

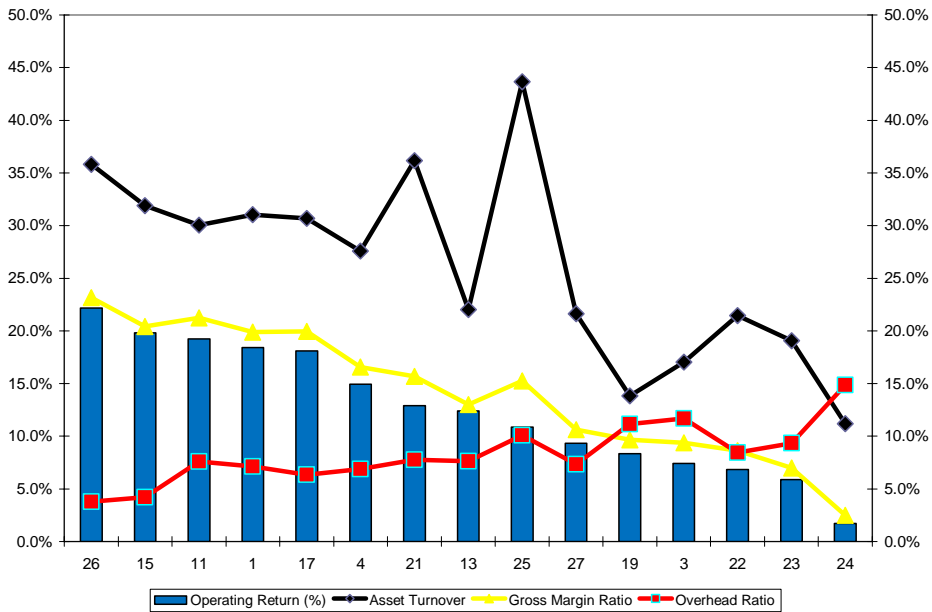
We have owned our weedseeker since October 2003. In that time we have sprayed 56000 hectares at an average usage of 17%. This has led to savings of \$ 506 000 since we purchased the Weedseeker. Not only have we saved on herbicide use, we have also been able to use tank mixes that are uneconomical for broadacre use. This allows us to use the right herbicide instead of additional glphosate.

Understanding the profit Drivers:

We have spent a lot of time understanding what works in our business and what does not. The ability to measure and compare has helped us focus on what is important.

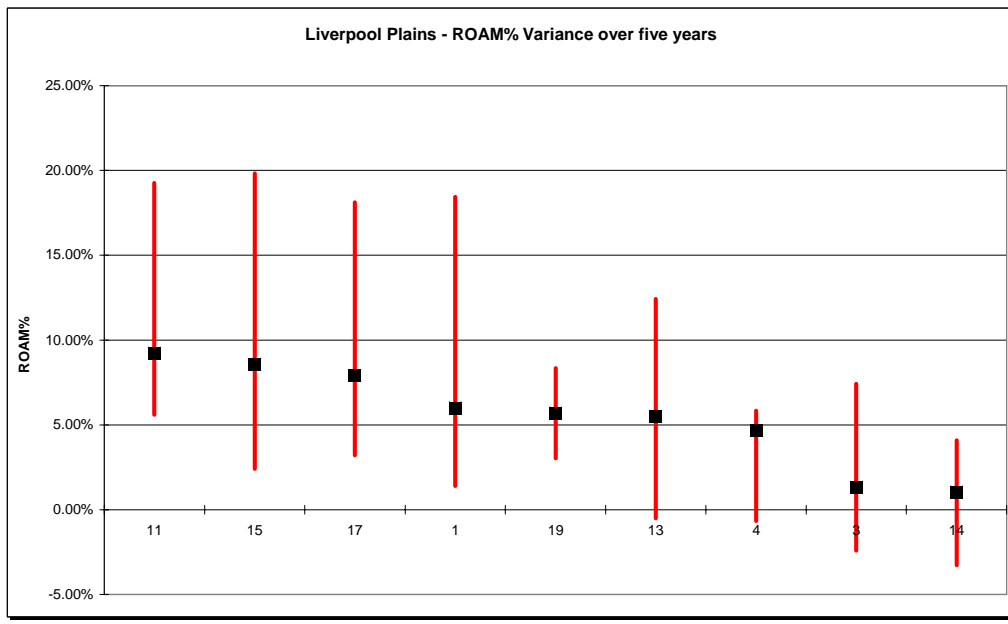
Merrilong Pastoral Company is farm 11 in the following graphs.

Profit Drivers - Liverpool Plains /Namoi Region 2007/08

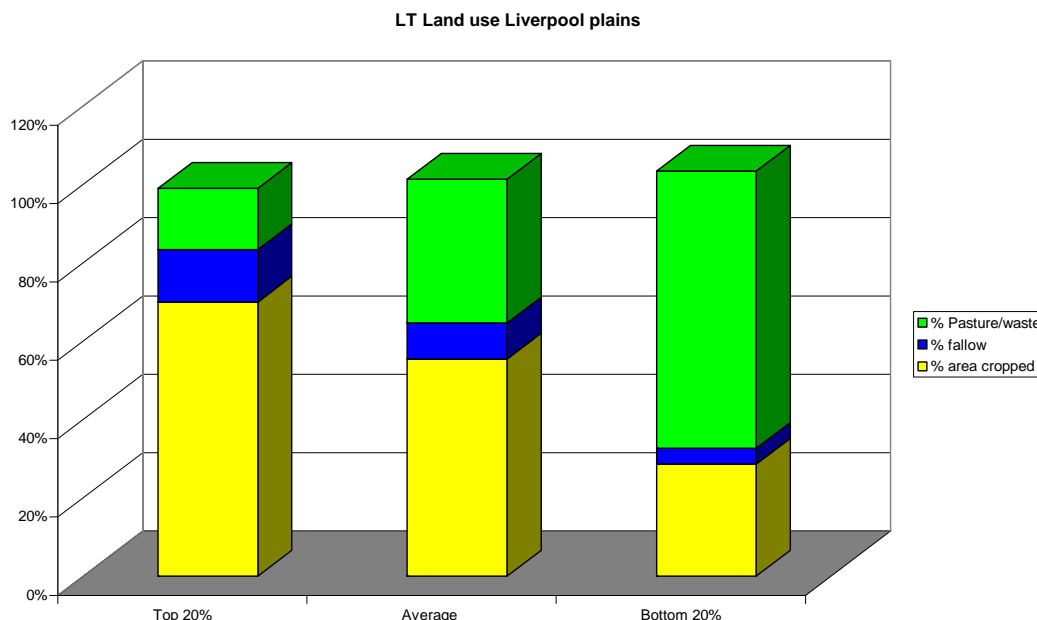


Longer term performance

Top performers over the last 5 years have averaged 8.9% helped largely by the high returns in 2007/08. See chart 3. The top 4 businesses all have access to ground water which has helped generate high returns from record grain prices. Chart 3:



The bottom 20% are restrained in land use whereas top performers are able to crop nearly 80% of their properties.



Conclusion

The key areas of our business

The key areas of our business	How we manage the key areas
Soil Moisture	Controlled traffic, No Tillage, stubble retention. Crop rotation and controlling weeds in the fallow.
Nutrition	Crop Rotation, Soil testing, Precision farming and the use of the Greenseeker and NDVI
Marketing	Numerous tools and analysis of both domestic and global grain production. Grain storage has given us choice and control of decisions
Family Succession	Implemented corporate structures in a

	family business. Our board has two external directors and an external chairman.
Staff Management	Involving them as part of the team. Training staff in all aspects of the business.
Financial Analysis	Benchmarking against other leading farmers. Regular reporting.
Technology	Keeping abreast of new technology and looking for a “fit” in our business.

And the ability to recognize that “change” is our friend and will drive innovation.