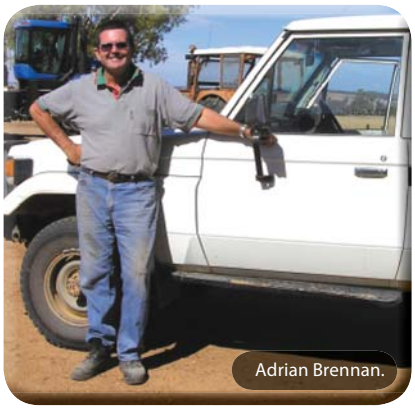
Hay and lupins produced on-farm are used as supplementary feed for sheep during summer and autumn.

Jim, Marjorie, Adrian and Fiona Brennan

'Harrogate', Calingiri

Georgie Sadler, Grain & Graze Project Officer, Victoria Plains Landcare Management Group



Adrian Brennan.

'Harrogate' is one of two properties Jim, Marjorie, Adrian, and Fiona Brennan and family own near Calingiri, in the Victoria Plains area. This 3427 ha property is a mixed farming enterprise which incorporates both merino and crossbred sheep as well as cropping. They own a further 900 ha just north of Calingiri.

Average annual rainfall ranges from 380 mm to 400 mm. In 2006, they received half the amount of growing season rainfall (190 mm) than in 2005 (354 mm).

Typical of the area, cropping is the dominant operation at 'Harrogate', with around 70% of the arable area sown to crops each year, while the remainder is used for grazing. About 1700 ha is cropped annually to wheat, malt and feed barley and oats for hay in rotation with lupins and annual pastures. Oaten hay and lupins produced on-farm are used to supplementary feed sheep prior to lambing, during summer and autumn and to finish lambs in a feedlot.

Adrian says, 'We grow as many cereal crops as we can in paddocks with soil types that can handle continuous cropping, with either a wheat–wheat or wheat–barley rotation. Paddocks which are sandy or have an increasing weed burden are used for pasture.'

Changes in the Brennans' recent cropping regime include substantially reducing the area sown to lupins, a result of reduced profitability over the last few years. Subsequent dry seasons have led to poor establishment, and Adrian now considers lupins to be a risky crop. Reducing the area sown to lupins has enabled the Brennans to boost the area sown to clover, while maintaining a legume in the rotation. A cereal is sown (oats or barley) along with the clover in the establishment year to provide early sheep feed.

January 2006: Lucerne has been established at 'Harrogate' to provide summer and autumn feed.

The Brennans run sheep in a self-replacing merino flock structure. Adrian says sheep are used in the system for 'risk management and weed control'. A merino–prime lamb operation is the main sheep enterprise on 'Harrogate', with sheep numbers totalling approximately 4600 head.

Over the years the Brennans have altered the time of lambing to suit seasonal conditions, reduce supplementary feeding and better-match feed supply and demand.

'We have moved lambing to late June and finish lambs in a feedlot situation before selling to market,' says Adrian. Top crossbred lambs normally go into the feedlot in early January and stay there for 6 weeks before being sold to meat processors such as WAMMCO or Walsh's.

There is an array of feed types at 'Harrogate', including volunteer annual pastures, grazing oats or barley with clover, crop stubbles, lucerne and saltland pastures. The grazing cereals, saltland pastures and lucerne tend to be grazed year-round, and can play an important role in filling feed gaps throughout the year and enabling deferred grazing of annual pastures.

Volunteer annual pastures have been the dominant feed type throughout winter and spring, while crop stubbles provide the main grazing value in summer and autumn. However, recent results have shown that paddocks sown to grazing cereals and clover outperform volunteer annual pastures.

The Brennans currently sow over 200 ha to grazing cereals and clover each year.

'We normally sow these paddocks early, often dry, and we're not too worried about weed control. We sow at a rate of about 30 kg/ha of oats or barley when we are short of oats and 8–10 kg/ha of clover,' Adrian explains.

These paddocks are initially grazed some time in June and, depending on the season, again in spring or left as a standing crop for summer/autumn feed.

Adrian sees a strong link between stocking rate and profitability of livestock. He also believes that rainfall is the main constraint to production, so he ponders whether they can increase their winter stocking rate by producing early feed growth with the grazing cereals.

At present paddocks sown to grazing cereals and clover are intended solely for grazing. However, Adrian plans to trial more strategic grazing of the oats so that he can also harvest the subsequent crop. This may limit the amount of grazing opportunities, in order to avoid substantial reductions in grain yield.

Adrian also intends to replace more volunteer annual paddocks with grazing cereals and clover in years to come. This will increase winter and spring feed supply and provide more stubbles for grazing during summer and autumn. He believes grazing cereals will be a viable option in the future.

'I don't think we will plant any more perennials in the future,' he says. 'We will probably stay with cereals for winter and spring grazing or as standing fodder for summer.'

Although making up nearly one-third of the total farm area, much of the saltland area provides very limited grazing value (bare salt scalds/samphire). This is reflected in the low stocking rates. The saltland areas do, however, play an important role in times of feed shortage and allow the grazing of volunteer annual pastures to be deferred early in the growing season.

The Brennans plan to maintain their current cropping to sheep ratio in the future, allowing for small seasonal variations from year to year. For example, in 2006, the total area sown to crops was reduced due to drier conditions and a late start.

Stock numbers on 'Harrogate' have also been reduced during times of feed shortage throughout the last three years. Dry ewes have been sold off, while lambing ewes have been agisted at a neighbouring farm to enable annual pastures to become established.

The Brennans generally aim to reduce stock numbers in autumn when feed supply is low and increase stock numbers in spring when feed supply is high, if there is an opportunity.

They believe that mixed farming reduces overall risk. Although sheep are a labour-intensive enterprise, Adrian is confident the family will maintain the sheep enterprise into the future. By maintaining a mixed farming system, the Brennan family have reduced the risks associated with a single enterprise business. They have adapted to changes in seasonal conditions and are willing to trial new practices to make their business more profitable and sustainable.