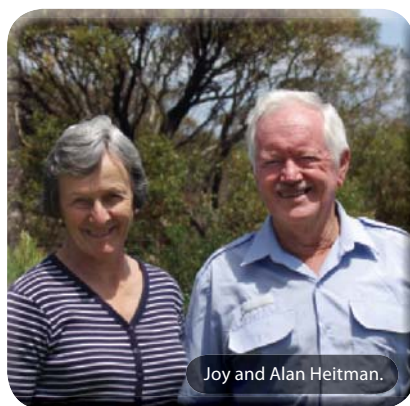




Alan and Joy Heitman 'Arena Farming Co.' Mingenew



Sarah Knight, Grain & Graze Project Officer, Mingenew–Irwin Group



On most northern agricultural region farms of Western Australia, there are areas of deep white sand. On 'Arena', this once very unproductive land has been transformed with the establishment of perennial pastures in the form of tagasaste and subtropical perennial grasses.

'Arena' is a 2700 ha mixed farming property located 20 km south of Mingenew and owned by the Heitman family. The country is gently undulating and comprises a range of soil types from gravelly sands to yellow sand plain to the valley floors of white sand. Average annual rainfall on this property is 420 mm.

'Arena' is a true mixed farm running sheep and cattle, and cropping approximately 1000 ha annually.

'Arena' has 150 ha of quality remnant vegetation and breakaway country, which has been fenced off with some help from the Natural Heritage Trust Envirofunds. These areas are valuable habitat for some of the native species in the area including the priority listed grey strike-thrush and more common birds like willie wagtails and Australian kestrels.

The livestock enterprise consists of a self-replacing Murray Grey cow herd, producing weaners for feedlots, and self-replacing stud and commercial merino flocks, producing rams and shipping wethers. A percentage of the merino ewes are joined to terminal sires, with the offspring sold to feedlots as prime or sucker lambs.

Both sheep and cattle numbers have been reduced during the last couple of dry years, with only the very best genetics left. Breeding cow numbers are down from about 375 at their peak to only 200, and only a couple of mobs of sheep remain. Previously there were over 2500 sheep on 'Arena'.

When the Heitmans brought 'Arena' in 1980 they were new to sandplain country, having previously farmed the heavier soils of the Morawa district.



Weaner cattle grazing tagasaste.

‘We found the sandy valley floors to be very unproductive and lacking in essential minerals,’ said Alan. ‘We initially used this land for lambing ewes but stopped it when the ewes were in poor condition come lamb marking time.’

Wind erosion is also a major concern each year from the end of January through to the end of March. The hot howling easterly winds, straight from the desert, would rip right through the country taking with it any exposed topsoil.

Tagasaste was introduced to the sandy valleys in 1996, after Alan met the tagasaste expert, Bob Wilson at (...where other than?) the Mingeneu pub. A neighbour then suggested that cattle were better than sheep at utilising tagasaste so, that same year, they purchased 35 Murray Grey cows. Since then their cow numbers have increased to 375 (prior to the drought years) and tagasaste now covers 360 ha in 14 paddocks.

‘These paddocks are no larger than 50 hectares,’ said Alan and Joy, ‘as this makes grazing management easier. Any bigger and it is not fully utilised.’

‘By introducing tagasaste to this country we can now run one cow per hectare in summer in a good year, whereas under the annual pastures it was struggling to run one sheep per hectare in the winter months,’ said Alan.

The Heitmans believe the success of this perennial shrub is because its roots have the ability to go deep down in search of water. This allows it to access water all year round.

The tagasaste is grazed all year round, but comes in to its own over summer, when it provides the bulk of the farm’s feed. However, in late summer there is the tendency for its leaves to dry up and curl, at which stage the cattle’s feed is supplemented with hay. By this time of the year the inter-row feed (which is about 10 m wide) has turned to sand.

The Heitmans mechanically cut their tagasaste every year or two. It is often cut in two stages, with one side cut in autumn and the other in winter. This allows the first side to green up before the other side is cut. The Heitmans have found that cutting the shrub back to a metre in height is best.

Tagasaste is also used at calving, lambing and weaning time. Cows calve down in these paddocks. Alan and Joy have also trialled lambing ewes in these paddocks and found a 20% increase in lambing percentage. Tagasaste provides a shelter for the newborn lambs from the cold winter winds. The ewes and lambs stay in these paddocks for only a few weeks until the lambs are strong enough to move.

‘If they stay any longer,’ Alan says, ‘the ewes go feral and hide in the tagasaste (which provides protection) rather than staying with their mob.’

Alan and Joy also use the ungrazed tagasaste when they are weaning their cattle.

Cows are no longer mated on tagasaste. In the years in which the Heitmans have trialled this, they

had a very poor in-calf percentage. It is not known why this happens. Cows are now joined while grazing annual pastures.

Having sorted out their really unproductive land with tagasaste, they were looking for an option for their least profitable cropping paddocks. In 2003 they planted one of these to subtropical perennial grasses. They had a lot of success with this paddock, so in 2005 they sowed another. The perennial grasses were sown in late August and early September at a depth of about 5 mm. The establishment, especially in 2005, was 'a roaring success' said Alan. Both years they have used the Evergreen Mix which consists of Gatton panic, Bambatsi panic, Splenda setaria, Rhodes grass and Signal grass.

The last two tough years haven't allowed the perennial grasses on 'Arena' to reach their potential. But back in the spring of 2005, when conditions were better, the older paddock supported a stocking rate of 9.9 DSE/ha. A big advantage of having perennial grasses in the system is that they can take advantage of out-of-season rainfall. However, the Heitmans have noticed that 'the perennials on the sand are doing quite well, but the ones on the gravel have thinned out a bit'.

Similar to tagasaste, the subtropical perennial grasses have helped environmentally, stabilising the soil and reducing the erosion risk immensely.

'Arena' is about to enter a new era following the retirement of Alan and Joy. Donald, Julie and their children will take over the reins and, naturally, there will be some changes. Donald is not a passionate livestock person, like his parents, having concentrated on cropping since his return to the farm 20 years ago.

Sheep numbers will be reduced, as Donald is more interested in cattle, due to their lower labour requirement. The remaining sheep will spend the growing season on another farm north of Mingeneu, but return in the summer to take advantage of the crop stubbles, and to help clean up paddocks for the following year's cropping program.

As substantial areas of 'Arena' are under perennial pastures, Donald and his family see cattle as a viable part of their farming system.

'I have even grown to like them over the last few years,' said Donald.

They intend to increase their cattle numbers as the seasons allow. To keep cattle interesting they are going to try putting Gelbvieh bulls over a mob of cows to see how that goes.