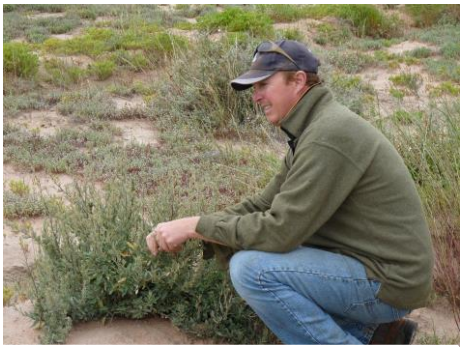
TONY WHITE – GENOCANNA Farm

Enterprise: Cropping, Merino Sheep and Beef Cattle
Total farm area: 2800 ha
Average annual rainfall: 300 mm
Landform and soil type: Undulating mixed soil types – light sandy soil and heavy clay

Tony White is the President of the Moora Miling Pasture Improvement Group and runs a family property "Genocanna" North West of Miling in the Shire of Moora in Western Australia. Genocanna lies on undulating light sandy soil and heavy clay of the Moore Catchment Region. It has been held by the White family since 1924. Traditionally, the Whites' have been cropping cereals on about 2,100 hectares (ha) of arable land and run beef cattle and merino sheep on the remaining 700 ha - which is pasture and saltbush country.



Tony White Tony is thrilled with the results he is achieving with saltbush

Tony's story

"In the early days the land was great, there were no serious environmental issues." But in the 1970s the Whites' started to experience issues of rising groundwater and a spread of salinity particularly in the lower lying parts of the property. What was then the good country was reduced to bare scalds and barley grass which made it practically difficult to support any farming system.

Furthermore in the 1980s, they became aware of a number of issues including wind and water erosion particularly on the sandy rises, and soil acidity on their property. These issues intensified the pressure on the productive areas and also on the sandy rises that were carrying their breeding flocks. Tony said, "in those days little seemed to be known about management practices such as stubble retention and no-tillage techniques."

Learning to manage unproductive soils

The White family have always prided themselves on being good stewards of the land, but when their farm was degrading, they knew there had to be a better way to manage their natural resources. In the late 1980s they installed contour drains to manage surface water runoff and protect the soil from erosion.

While this system certainly directed water off the slopes, it was causing water quality issues as well as exacerbating water erosion problems when the water reached their heavier country. “I guess there were two factors which have caused the problem – i.e. there was less information to assist us design better contour drains at the time, and also there was not enough groundcover during summer to prevent the loss of soil in heavy rains,” says Tony. This spurred the White family to look for better ways to address their groundcover issues.

In 1992 they introduced no-tillage into their farming system. The use of knife points and discs has enabled the Whites to use water better (improved soil water storage) and control weeds. “The no-till concept has made us more attentive to details such as weed control, crop rotations, disease control, soil moisture, fertilisers and now soil carbon,” Tony stated. “It has also enabled us to sow large areas of land in a short time on little or no moisture”.

The White family’s desire for a sustainable and healthier farm didn’t stop there. Where there were salt scalds in the lower lying areas, they mounded and planted 250 ha of salt bush (a mix of River, Old Man, Quail brush, and Wavy leaf saltbush) and Sheoak – a salt tolerant tree species. The Whites’ see saltbush fodder shrubs as an important component of their farming system. Tony says “salt bush helps drought proof the farm and protect the land from the natural elements whilst adding extra feed at critical times of the year”. “Once you get the establishment right, you will be amazed to see the regeneration of other native plants such as bluebush in these areas. “Thus transform your saltier country into useful paddocks to graze sheep and cattle.”

In 1994 after attending some field days and learning about Tagasaste, the White family also introduced Tagasaste into their farming system. In the beginning they tried seedlings, but later they realised that direct seeding has a better establishment rate than seedlings; thus they direct seeded

the majority of their 80 ha of Tagasaste. Related to this is a grazing rotation which the Whites' believe is a valuable tool that has helped better manage their pastures. They have divided their Tagasaste planting [with electric fence] into four paddocks – each with water supply points. They use each of these paddocks for summer and autumn grazing where about 30 to 40 cattle graze for about two months. In regards to soil acidity issue, Tony said, "it isn't a serious problem at the moment as they have treated the acidic soils on the property with lime at two tonnes per ha in 2007".

Reaping the benefits

- "We have been really pleased with the way things have evolved so far. We have seen enough of the benefits from the Tagasaste in the sandy hills and the salt bush planted into the mounded saline areas. With such feed on offer, our merino sheep have increased their wool micron. Their lambing rate has also increased. "And last year we had 50 dry ewes out of 1100, which I believe is quite good without supplementary feeding during summer".
- "Our farm has been assessed by a Land for Wild Life Officer and we were informed that our revegetation has created biodiversity linkages that have attracted a number of birds, vertebrates and useful bugs in our remnants and revegetation. The fenced areas have also enabled natural regeneration of native tree and annual legume species for the stock".
- "We have learnt to be more diversified. The conservation tillage we introduced about 20 years ago has resulted in better crop yield. It has kept the topsoil intact and protected it from wind erosion and has quite good capacity to retain moisture in the soil for the next crop."
- "With GPS technology coupled with new grain varieties for wheat, barley and canola, it has transformed the way we farm. We now manage our fertiliser input better and also our use of herbicides and fungicides – a good recipe for high yielding crops. Last year (2010) we had production averages of 2.2 t/ha for wheat, 2.8 t/ha for malting barley, 4 t/ha for canola and about 1.4 t/ha for lupins."

Lesson learned

- Being flexible in farming is important as it helps when things go wrong.
- Better use of water, soil and labour provides better environmental and farm outcomes.

- Use of every learning opportunity (whether through attending field days, crop updates, workshops or tours of other parts of the world) gives one a good understanding of how other farmers operate. It also enables you to appreciate where you are at as a farmer.
- When you have planned your rotational grazing well, it provides long-lasting pasture for the stock.

Where to from here?

- We plan to start managing our farm energy requirements. We plan to install enough solar panels for the homestead and to have spare energy to sell to the grid.
- We are still exploring ways to become self-sufficient in terms of farm energy - perhaps biofuel is an option for the future.
- We will also explore the Australian Government's Carbon Farming Initiative opportunities.

Acknowledgements

This case study was supported by the Northern Agricultural Catchments Council, through funding from the Australian Government's Caring for our Country program. Rachel Walmsley of the Moore Catchment Council organised the meeting with the White family and provided input into the discussion. I thank Rachel for her support and collaboration. Special thanks to the White family for sharing their farming experiences.

For more information about this case study please contact Stanley Yokwe, NACC's Regional Landcare Facilitator at NACC on (08) 9938 0105 or at Stanley.Yokwe@nacc.com.au