

Saltland management yields high-quality results

The incorporation of saltbush and a mix of subtropical grasses and lucerne is lifting production on Gary and Kerry Butcher's mixed farming operation, *Elena*, as they explained to Brianna Peake from the Liebe Group.

Gary, Kerry and their son, James operate a mixed farming operation near Pithara in WA's mid-west.

Gary is a third generation farmer and generally crops 2,200 ha in a wheat pasture rotation as well as running 1,300 Merino ewes in a self-replacing flock.

"We lamb down our ewes in June and reduce stock numbers before summer by culling dry ewes and poor weaners," explains Gary.

"This enables us to carry the maximum number of sheep possible over the summer period.

We carry our wether lambs through to an appropriate weight for the lamb market but may sell some of these as shippers if the year is poor and they cannot achieve the required weight gain.

Each year we cull 25 per cent of our weaner ewes to get rid of poor wool types. But if we keep these 25% they are mated to terminal sires, along with five year old ewes and their crossbred offspring can be sold earlier than pure-bred lambs as they can gain weight faster.

Case study: Gary and Kerry Butcher

Location: *Elena*, Pithara, Western Australia

Property size: 2800 ha

Mean annual rainfall: 300 mm

Soils: Salmon gum to sandplain

Enterprises: Mixed farming – cropping and sheep



Photos: Grain & Graze

Gary uses this area as a safe lambing environment with saltbush rows and sub-tropical perennial pasture inter-row. INSET: Gary and Kerry Butcher.

The other 75% of the Merino ewe weaners are mated to Merino rams for the next four years.

Our aim is to produce both high-quality wool and meat from our sheep and so therefore target both markets.

Cropping strategy

The long-term average wheat yield for *Elena*, since the adoption of minimum tillage during 1993 is 1.7 tonnes per hectare. However the average wheat yield for 2006 was reduced to 0.75 t/ha, when only 158 mm fell during the growing season (Apr-Oct).

Our family has experienced drought conditions for two years during the past five, which has bought their five year wheat yield average to 1.14 t/ha, highlighting the importance of livestock in the enterprise mix.

Although wheat is the biggest income earner in the district, we use stock to reduce risk, diversify income and control weeds.

Throughout the year, sheep are run on a variety of volunteer and improved pastures, as well as crop stubbles.

We usually sow about 400 ha to Caliph medic and Cadiz serradella on an annual basis and in the past two years have been sowing the Cadiz in a mix with oats and a further 200 ha of oats alone.

Many growers within our region have started sowing grain oats to provide early feed for stock and to defer grazing on newly sown or germinating improved pastures.

This was common practice in years gone by, but has become less so during the past 10 years. Growers have reverted back to grazing oats such as Pallinup, as they are not getting the early season bulk needed from improved legume pastures.

When the oats grow past ear-emergence they become unpalatable, forcing stock to eat the weeds and so providing another tool in the integrated management of weeds.

Key points

- Management methods maximise both wool and meat quality
- Saltbush has increased lamb survival
- Perennial grasses are providing a productive substorey of feed.

Improving saltland

Elena lies within a salt lake system that flows into the larger Ballidu Lake system. Consequently, the property has 1100 ha of salt-affected country. We have long been advocates for landcare.

We can see the benefit of improving saltland for grazing and since 1997, we have sown 60 ha to saltbush. The established blocks of saltbush have proved to be useful in filling the autumn feed gap as well as providing shelter at lambing time.

Saltbush paddocks are small so ewes are not far from water, which reduces the risk of separation from lambs.

Saltbush is a valuable part of our system and has helped to reduce lamb deaths by providing protection from the elements.

We also have sown a mix of sub-tropical perennial grasses and lucerne in the inter-row of the saltbush alleys. The mix was sown in September 2005 and is well established.

This district is not traditionally one where perennial grasses have been grown in the past.

But they are surviving and providing a good substorey and additional feed to the saltbush. The results have been so successful that we will continue to expand their areas of saltbush over the next five years*.

* The details featured in this case study were as per the end of 2006 and some details may have changed due to the ongoing drought.



- The Butchers are one of 18 demonstration farmers in Western Australia's Northern Agricultural Region (NAR) participating in the Grain & Graze program. One of nine Grain & Graze programs nationally, the NAR project involves four farmer producer groups — the Mingenew Irwin Group, the Liebe Group, the Evergreen Farming Group and Victoria Plains Landcare Group.

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Science behind the story

By Brianna Peake

One of the project objectives of the Northern Agricultural Region Grain & Graze project is to collect grazing records from the 18 focus farms in order to provide an overview of the feed resources growers have available and how these are being utilised.

This information allows the project to further focus on the feed resources providing most value to the farm and identify where growers can potentially be better utilising these feed resources.

Gary has been collecting grazing records for the project since the middle of 2005. The analysed results of Gary's records are shown in the table on the right.

The main saltland fodder shrub findings show that areas sown to saltbush increased slightly from the 2005 to the 2006 season.

In addition to this about another 30 ha was planted to saltbush during 2007 and Gary plans to continue sowing saltbush areas to provide a drought proofing mechanism in the future.

Even though the current figures show that saltbush, bluebush and perennial areas only account for 1-2% of farm area and value, this value can be significant at the right time of year and in drought conditions.

During the dry spring of 2006, the stocking rate on the saltbush/perennial areas was 1.5 DSE/ha higher than on the next most heavily stocked feed source which was a mix of

Summary of grazing records for the period of June 2005 to May 2007

June 05 – May 06					
Feed type	DSE/ha	Total DSE grazing days	Area (ha)	% Total area	% Total grazing days
Volunteer pasture	4.1	339,480	226	9	31
Caliph medic	1.4	81,693	158	6	8
Cadiz and oats	2.5	248,489	267	10	23
Oats	1.0	82,804	231	9	8
Crop stubbles	0.3	211,666	1907	65	19
Saltbush	0.8	2,304	8	0	0
Saltbush and perennials	0.5	4,064	22	1	0
June 06 – May 07					
Feed type	DSE/ha	Total DSE grazing days	Area (ha)	% Total area	% Total grazing days
Volunteer pasture (VP)	1.2	327,058	721	29	40
Medic and VP	1.3	60,458	128	5	7
Medic	1.3	159,939	334	13	19
Oats harvested/hay	0.5	51,583	268	11	6
Saltbush and perennials	1.1	9,055	22	1	1
Saltbush/bluebush	0.1	1,593	33	1	0

medic and volunteer pasture.

- Brianna Peake is the Executive Officer for the Liebe Group. The aim of the Northern Agricultural Region (NAR) Grain & Graze project is to maximise farm profitability through the successful integration of perennial

pastures into the whole year feed resource, complementing grain and annual pasture production. For more information, visit: www.grainandgraze.com.au