

## Future agriculture needs leadership

by Gill Fry

According to Andrew Campbell, former head of Land and Water Australia and a Director of the Future Farm Industries CRC, agriculture in southern Australia is 'sleep walking off a cliff and it is time to wake up!'

In his opening address at the recent Grasslands conference in Geelong, Andrew was provocative and encouraged producers to plan and manage their businesses on the assumption that rapid environmental change will continue. 'It is not a blip', said Mr Campbell. 'Climate, water, energy and food are converging as never before. Agriculture now, will not be good enough in the future', he said.

Andrew predicted there will be severe oil shortages before 2020 and we will need to double food production by 2050.

At the same time, we have an increasing population demanding more food, using more energy and using more water.

Despite the gloom and doom, Andrew also said that the future offered opportunities, but we need to be innovative.

'We need a third agricultural revolution, which demands real leadership', said Andrew.

'We need creative thinking, like the EverGraze mission; to radically out-perform what we have now.

We need to consider systems such as closed loop farming system where we reuse and recycle water, energy, nutrients and carbon. We should be producing renewable

bioenergy. We must understand and use soil microbial activity. And we require urban food production, recycling of waste streams and urban water and nutrients'.

Healthy environments, healthy farming systems, healthy foods and healthy people are intricately entwined.

Andrew has a seven point plan for renovating agriculture;

1. Rejuvenate Landcare and re-engage the community,
2. Reinforce the regional catchment model,
3. Rewire environment information systems,
4. Revolutionise agricultural research and extension,
5. Reform drought policy,
6. Reunite carbon, water, energy, food, farming and fire,
7. Redesign the Agricultural Institute

He challenged the audience as he concluded by quoting Phillip Adams. "The future is not some place we are going to, but one we are creating. The paths to it are made, not found". The full address is available at [www.evergraze.com](http://www.evergraze.com).



Andrew Campbell [www.triplehelix.com.au](http://www.triplehelix.com.au)

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# Latest results on Split Joining

by Susan Robertson and Michael Friend

Split Joining means mating a proportion of a Merino flock to terminal sires for two weeks in summer to provide a uniform line of prime lambs born in mid winter. The remaining flock and ewes scanned as non-pregnant are joined to Merino rams in autumn for spring lambing.

An important reason for using Split Joining is to add flexibility and reduce risk in all-ewe operations. With all-ewe flocks and spring lambing, there are few options to sell stock if spring cuts out early. Spring born lambs and lactating ewes can be of limited sale value.

In a dry spring, July born lambs can be weaned and sold as store lambs and if necessary, ewes sold after weaning.

Early sales can significantly reduce overall feed consumption and allow later lambs to be maintained through to acceptable weaning weights.

In the Split Joining system at Wagga Proof Site, 50% of ewes lamb to a terminal sire in July, and the other 50% to a Merino sire in September.

Over 3 drought years (2006-2008) with very low spring rainfall, the Split Joining system has given an average gross margin \$110/ha higher than a September lambing system and \$52/ha higher than a July lambing Merino system.

High stocking rates are a key profit driver and spring lambing allows high stocking rates.

However in years of dry springs, September lambing can result in low lamb weaning weights and high supplementary feed costs.

The Split Joining system had a 30% lower stocking rate which reduced feed costs by 35%, and while the number of lambs weaned/ha was 7% lower, kg/ha live lamb sold was 20% higher due to higher sale weights.

Lambs were sold at reasonable weaning weights in poor years, but retained to higher weights when pasture conditions allowed.

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Eric Hall examines the Supporting Site

## Tassie hedges

by Eric Hall and Warren Hunt

Situated on the property "Weedington" near Oatlands, Tasmania, this Evergraze Supporting Site was established in September 2008. The aim of the project is to investigate the suitability of several browse species for use in a hedgerow system.

The browse plants were established in combination with the recently released Mediterranean cocksfoot (*Dactylis glomerata* ssp *hispanica*) varieties Sendace and Uplands, to provide grazing and shelter for lambing ewes in this cold and windy environment.

The main focus for the hedgerows has been on the leguminous shrub Hairy Canary clover (*Dorycnium hirsutum*). A number of plants of the Mediterranean saltbush (*Atriplex halimus*) were planted at the same time to see how they compare with the *Dorycnium*.

The 2ha site has established well despite the extremely difficult conditions. The successful establishment has demonstrated the suitability of these species in a challenging arid environment. Their resilience has greatly impressed the property owner and neighbours who have visited the site.

The site will be open on 29th of October 2009. See page 4 for details

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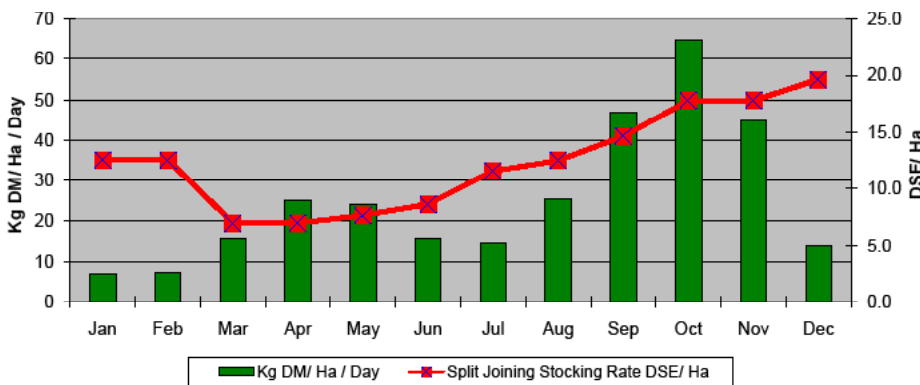


Fig 2. Split Joining stocking rate, Pasture growth in a poor spring at Wagga

Table 1. Comparison of different times of lambing and split joining

	July lambing	September lambing	Split Joining
% to terminal	0	50	50
Potential ewes/ha	6.2	10.6	7.7
Estimated Gross Margin (\$/ha) in average spring	\$135	\$448	\$427
2006-08 Average Gross Margin (all poor springs)	\$53	-\$6	\$105

# Pasture production at Hamilton

by Steve Clark

The EverGraze experiment at Hamilton is evaluating pasture systems with different options on each soil type.

In each system the amount grown each year has varied with the amount and distribution of rainfall.

The graph to the right shows the total pasture accumulation (tonnes of dry matter per hectare) for the last three production years.

For the highly winter-spring active perennial ryegrass system production was 49% greater in 2007/08 than 2006/07, primarily due to the boosted spring production in response to 98 mm of rain over November 3-4 2007.

In contrast the production from the triple system and novel systems with higher summer activity were only 26% and 5% greater respectively in 2007/08 than 2006/07.

In 2008/09, the three systems were similar largely because of a lack of summer rain.

On average, growth rates were better in early autumn/winter for the triple system while the ryegrass system was better during spring.

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Fig 4. Shaun & Lisa McIntyre inspect the lucerne near Dunkeld, Victoria

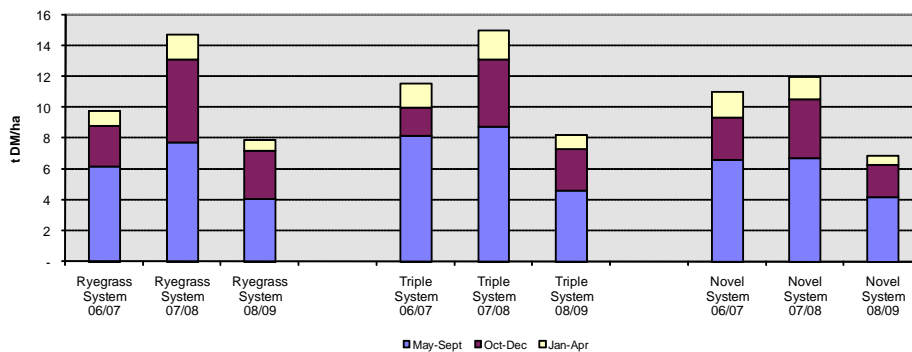


Fig 3. Pasture accumulation for each system (tonnes of dry matter per hectare) from May 2006 to April 2007, May 2007 to April 2008 and May 2008 to April 2009.

# Pannyabyr Landcare trials perennials for changing climates

by Geoff Saul

Pannyabyr Landcare group situated south of the Grampians in south-western Victoria has set up two Supporting Sites to trial summer active perennials on local farms. This region has traditionally relied on perennial ryegrass as its main species. However, the recent run of dry years has seen a decline in this species and replacement with annuals such as barley and silver grass. Collaborating producers Shaun and Lisa McIntyre said people were keen to try other perennials in the area.

"This region is normally seen as being too wet for lucerne", Lisa said. "However, we seem to be getting more summer storms and less rain in winter so people are keen to try lucerne or summer active tall fescue".

In early October 2008, a paddock was sown to 10 kg/ha SARDI 7 lucerne and 0.25 kg/ha Porto cocksfoot. A small amount of cocksfoot was included to add some roughage to the diet, use nitrogen fixed by the lucerne, fill in any gaps in the pasture and keep out annual weeds. The paddock was treated with 2.5 t/ha lime before sowing and good weed control was achieved with a knock-down spray followed by light cultivation to incorporate lime and to provide soil seed contact. The paddock was also rolled after sowing to improve germination. However, following sowing, there was virtually no rain for 8 weeks which reduced establishment results.

"We were very concerned that the hot dry conditions after sowing were going to really decimate the establishment", Lisa said. "Plant counts in May 2009 showed 32 plants/m<sup>2</sup> of lucerne and only 1-2 plants/m<sup>2</sup> cocksfoot which was probably reasonable given the post sowing conditions", she added.

The group is keen to see what a good lucerne stand can achieve in terms of animal production. With some areas where there was virtually no lucerne present, Shaun decided to oversow the paddock in early autumn with 5 kg lucerne and 0.75 kg/ha cocksfoot. Results from the Hamilton Proof Site show that lucerne can be successfully thickened up in the first year after sowing after which competition or allelopathic effects make over-sowing ineffective. Early indications are that the over-sowing has only been moderately successful but plant counts in autumn will tell the full story.

The lucerne will be grazed by Merino weaners over summer to increase liveweights and improve their subsequent productivity.

Shaun and Lisa believe that the messages from the first year are the importance of good paddock preparation ahead of sowing and trying to sow early in spring ahead of a front so that there is at least one rainfall event post sowing

A field day will be held at the site on Wednesday 14th October.

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# EverGraze Events in your region

<b>VICTORIA ~ go to <a href="http://www.evergraze.com.au">www.evergraze.com.au</a> for more events &amp; details</b>		
Tuesday 15th September	Marlo	Prue Bergmeier P: 03 5152 0648 Prue.Bergmeier@dpi.vic.gov.au
Wednesday 16th September	Warncoort, Colac	Raquel Waller P: 03 5226 4071 raquel.waller@dpi.vic.gov.au
Friday 18th September	Mooneys Gap, Ararat	Rob Shea P: 03 5352 1357 yadin@netconnect.com.au
Thursday 24th September	Lismore	Karen O'Keefe P: 03 5596 2384 lpg@westnet.com.au
Wednesday 30th September	Cavendish	Harry Armstrong P: 0417 052 095 harry@vickerybros.com
Friday 2nd October	Bengworden	Prue Bergmeier P: 03 5152 0648 Prue.Bergmeier@dpi.vic.gov.au
Monday 5th October	Hamilton	Anita Morant Ph: 03 5573 0732 Anita.Morant@dpi.vic.gov.au
Tuesday 6th October	Warrak, Ararat	Jane Moorfoot, DPI Ararat P: 03 5355 0520 jane.moorfoot@dpi.vic.gov.au
Thursday 8th October	Ballan	Lisa Miller P: 03 5226 4070 Lisa.Miller@dpi.vic.gov.au
Monday 12th October	Brewster, Beaufort	David Clarke P: 0408 378 175 garvagh@bigpond.com
Tuesday 13th October	Mooney's Gap, Ararat	Rob Shea P: 03 5352 1357 yadin@netconnect.com.au
Wednesday 14th October	Dunkeld	Lisa McIntyre P: 03 5574 9235 advancel@anson.com.au
Friday 15th October	Yarram	Samantha Monks P: 03 5175 7895 samantham@wgcm.vic.gov.au
Tuesday 10th November Tuesday 12th November	Benambra Warrenbayne	Alison Desmond P: 03 5761 1643 Alison.Desmond@dpi.vic.gov.au
<b>NSW</b>		
Thursday 8th October	Holbrook Proof Site	Kate Sargeant M: 0428 325 318 Kate.Sargeant@dpi.vic.gov.au
Monday 12th October Tuesday 13th October Wednesday 14th October Thursday 22nd October	Yeoval Wellington Gilgandra Coolah	Luke Beange P: 02 6881 1294 luke.beange@industry.nsw.gov.au
Wednesday 21st October	Tamworth Proof Site	Dr Greg Lodge P: 02 6763 1176 greg.lodge@dpi.nsw.gov.au
Friday 23rd October	Barraba/Bingara Proof Site	Dr Greg Lodge P: 02 6763 1176 greg.lodge@dpi.nsw.gov.au
Tuesday 27th October	Orange Proof Site	Warwick Badgery P: 02 6391 3814 warwick.badgery@dpi.nsw.gov.au
Friday 20th November Monday 23rd November	Bathurst Orange	Luke Beange P: 02 6881 1294 luke.beange@industry.nsw.gov.au
Late November	Tamworth, Willow Tree	Simon Turpin P: 02 6742 9212 Simon.Turpin@cma.nsw.gov.au
<b>WA</b>		
Friday 18th September	Warren	Paul Omodei P: 08 9777 2980 paul@agvivo.com.au
<b>TASMANIA</b>		
Thursday 27-29th October	Tasmania - bus tour	Warren Hunt P: 03 6336 5464 warren.hunt@utas.edu.au

#### Disclaimer

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