

March 2009

Keeping you up to date with *EverGraze* developments

Welcome to the *EverGraze - More Livestock from Perennials* March e-newsletter issued to subscribers from our website. We welcome your feedback, contributions and comments.

EverGraze is using perennials in grazing systems with sheep and cattle to **increase profits by 50%** while simultaneously improving farm environments through improved water management, ground cover, biodiversity and soil health.

There are experimental Proof Sites in Western Australia, Victoria and New South Wales, with a network of Supporting Sites evaluating new ideas on farms.

EverGraze is a Future Farm Industries CRC, MLA and AWI research and delivery partnership.

Read on for the latest news and visit www.evergraze.com.au for the latest results

EverGraze Seminar ~ "LUCERNE - PAST, PRESENT & FUTURE"

Over 130 producers packed out a recent EverGraze seminar at Hamilton as people looked for information on lucerne to handle the changing climate in south-west Victoria.

EverGraze research leader, Ralph Behrendt, noted lucerne reduced the need for supplementary feed, provides quality feed over summer, uses water from deep in the soil profile & has surprisingly good winter production. "If you can grow lucerne you should", Ralph said.

Reg Hill, from PGG Wrightsons, spoke on getting the basics right, including soil testing to 20 cm, presowing weed control, dormancy ratings of different cultivars and sowing depth. Reg suggested that spring sown lucerne should be sown deep enough to access soil moisture, perhaps 20-30 mm deep but in an open slot with only 10 mm soil on top. "It's important that seedlings don't get desiccated by hot winds in October and sowing in a shallow open slot improves survival" Reg suggested.

Keynote speaker Bill Knipe, Manager of the International Division of Forage Genetics from USA, gave the audience a taste of what to expect from lucerne in the future. According to Bill, advances in lucerne have been slow over the last 30 years using conventional breeding. However with new genetic engineering techniques we can expect significant changes by 2015.

Bill said new genetic breeding allows the introduction of traits that are currently not available in lucerne or the knocking out of existing genes that have a negative effect. New traits include introducing genes that increase the fibre digestibility and decrease the lignin content to improve forage palatability and animal performance.

Another new improvement will be lucerne with leaf tannins. Introducing this gene will result in reduced bloat in cattle grazing lucerne. Other attributes being investigated are ways to delay flowering and increase plant biomass. "Delayed flowering will stretch the window of opportunity for grazing, before lucerne bolts and declines in nutritive value. This will enhance the flexibility of farm management resulting in better grazing, and hence higher animal production and fodder conservation", Bill said.

Drought tolerant lucerne is another important innovation of the future.

"The decreasing availability of water world-wide due to dry conditions and drought coupled with the increasing cost of water, highlights the importance of these genetic gains", Bill said.

All presentations from the Hamilton lucerne seminar can be downloaded from the EverGraze website

www.evergraze.com.au/slideshows

For further information contact Anita Morant, Anita.Morant@dpi.vic.gov.au



Bill Knipe at Hamilton EverGraze seminar

Western Australia ~ Right plant, Right place, Right purpose

New computer modeling results from WA suggest profitable farms need a combination of cropping & pasture systems matched to land class. Crops will continue to use the better 60-80% of the land with annuals (sub clover, annual grasses) and perennial pastures matched to remaining soils as suggested below;

- ◆ Kikuyu for summer - autumn pasture production and reduced soil erosion.
- ◆ Lucerne on suitable soils to drive increase ovulation and lamb growth.
- ◆ Chicory as a specialized lamb finishing pasture.
- ◆ Panic and setaria (pictured) for production and shelter at lambing.
- ◆ Tactical sowing of annual species such as forage oats into summer-active perennials to increase winter production.
- ◆ Rotational grazing to enhance perennial persistence and maximise pasture utilisation.
- ◆ Merinos mated for crossbred prime lamb weaning 120% and producing 200 kg liveweight/ha.



For further information contact *Paul Sanford*,
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SW Victoria ~ Establishing summer-active tall fescue

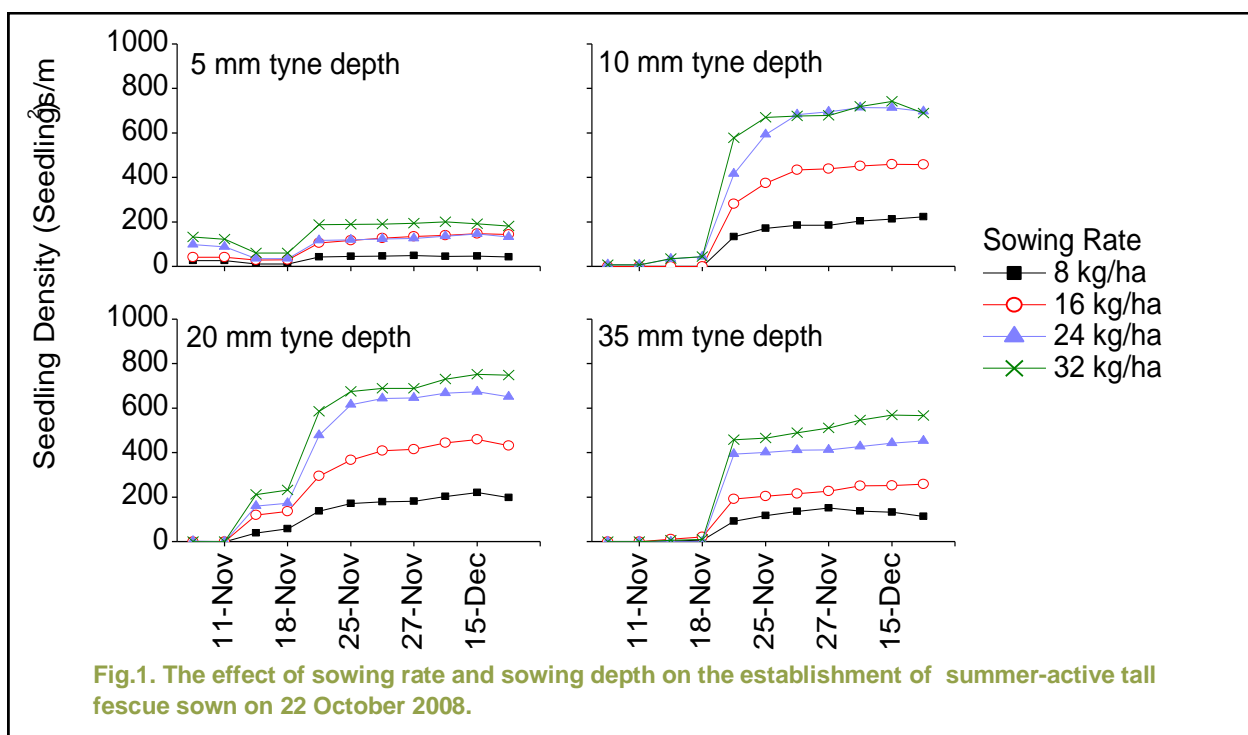
The use of summer-active tall fescue on heavy clay soils may extend the growing season of pasture systems. However, the species is notably slow to establish and is often badly affected by competition from weeds or companion species.

The principles of establishing summer-active tall fescue were tested at the Hamilton Proof Site. Quantum was sown on 22 October 2008. This research demonstrated that spring sown plots benefited from sowing at a tyne depth of 10 – 20 mm. This depth placed the seed in proximity to soil moisture, without depleting seed endosperm reserves before the seeds root and shoot system had developed. Sowing closer to the surface proved unsuccessful due to desiccation and predation.

The research also demonstrated the positive curvilinear effect of sowing rate on seedling density. At sowing rates above 24 kg/ha, competition between seedlings reduced seedling density.

An **EverGraze Action** - *Growing and using summer active Tall Fescue* is available and can be downloaded from the website www.evergraze.com.au

For further information contact *Margaret Raeside*, Margaret.Raeside@dpi.vic.gov.au



Central NSW ~ One Year Down and Rotations Perform

Three grazing systems, set stocking (1 paddock), 4 and 20 paddock rotations, are under investigation with native pastures at the Orange EverGraze Proof Site. All paddocks are stocked with CentrePlus ewes at 5.7/ha and are mated to terminal sires to lamb in September. Native species at the site include Microleana, Danthonia and Stipa with Fog Grass, annual grasses and some legumes.

Pasture production was greater for the 20 paddock compared to the 1 and 4 paddock systems since the start of spring 2008. By February 2009, there was 1.1 t/ha more pasture dry matter in the 20 paddock than the 1 paddock system. Initially lamb growth rates were greater in the 1 paddock than the 4 and 20 paddock systems. However, the greater feed on offer in the 20 paddock system allowed lambs to be grown on for an extra 6 weeks in these treatments and they were heavier at weaning than lambs from the set stocked and 4 paddock treatments.

Over the next 2 years, the systems will be monitored for differences in animal production, NRM issues such as ground cover, runoff and erosion, and pasture species diversity.

For more information, *Warwick Badgery*, warwick.badgery@dpi.nsw.com.au



Luke Beange examines the pastures

Northern NSW - Willow Tree Supporting Site tries sub tropical perennials

Brett and Bernadette Holz have made good use of favourable warm season conditions in establishing a tropical perennial pasture on 25 hectares of undulating country on their property 'Roane' at Willow Tree, 60km south west of Tamworth. The Holz's were originally cropping this 25ha but found they were running into soil erosion problems due to a lack of groundcover and the erodible nature of the heavy, self mulching soils. The tropical pasture was successfully sown in mid November 2008 with Bambatsi Panic (45%), Gatton Panic (45%) and Katambora Rhodes (10%) at 10kg/ha (coated seed) with 100kg/Ha Granulock 15 fert.

The paddock will have pasture legumes added over winter and will then be split into four treatments so that different grazing and fertiliser management can be investigated.

"We had initially planned to sow lucerne on the site but changed our minds because of previous soil erosion problems associated with summer storms," said Brett. "The lucerne was just not going to offer enough protection to the soil because of its low groundcover. So we decided to sow tropical perennial grasses to get something established that would have at least 70% groundcover year round," he added.

For further information contact Simon Turpin, Simon.Turpin@cma.nsw.gov.au

Producer survey provides guidance to EverGraze

Finding out what producers think about pastures and animal production systems is important to ensure that EverGraze is dealing with the right issues. Kate Sargeant, (DPI Victoria) recently worked with catchment groups and producers across the EverGraze network to undertake a detailed survey of current attitudes to different sown and native pastures, grazing management systems, use of fertiliser and animal management.

Some key findings were;

- ◆ There is strong interest in native perennials especially on less favoured areas, ie steep hills and poorer soils. However, producers indicated limited ability to identify different species and of the management required to get the best from native grasses.
- ◆ For improved sown pastures;
 - * Only about half of producers fertilised sown pastures on flats every year with less frequent application on rolling hills or steep land,
 - * Tall fescue and chicory are relatively untried only being tried on 15% of farms,
 - * Lucerne is used or had been tried on 30% of farms,
 - * Kikuyu was very common on farms in WA and East Gippsland.
- ◆ Adoption of rotational grazing varied widely. Producers agreed with the benefits of rotational grazing (persistence of desirable species, ground cover, weed control etc). Application of rotational grazing was 60-70% in NSW, SA and central and northern Victoria, but only 40% of producer used rotational grazing in WA and southwest Victoria.

Thanks to all producers who participated in the survey. The information will be used to plan extension activities over the next two years and measure changes in attitudes over time.

New EverGraze Action fact sheet

We have just developed a new **EverGraze Action - Split Joining reduces risk and provides options**. This new fact sheet explains what 'Split joining' is and how it can provide you with different farm management options. 'Split joining' means mating a proportion of a Merino flock to terminal sires in summer to provide prime lambs born in mid winter. The remainder of the flock is joined to Merino rams in autumn for spring lambing.

There are now ten EverGraze Action fact sheets on the EverGraze website;

- ◆ **EverGraze Action** - Growing and using Chicory on the East Coast
- ◆ **EverGraze Action** - Growing and using Chicory in WA
- ◆ **EverGraze Action** - Growing and using Lucerne
- ◆ **EverGraze Action** - Productive, persistent Perennial Ryegrass
- ◆ **EverGraze Action** - Growing and using summer active Tall Fescue
- ◆ **EverGraze Action** - Growing Kikuyu for summer feed and soil cover
- ◆ **EverGraze Action** - Growing and using Kikuyu in WA
- ◆ **EverGraze Action** - Grazing Phalaris for production and persistence.
- ◆ **EverGraze Action** - Split Joining reduces risk and provides options
- ◆ **EverGraze Action** - Perennial grass hedges provide shelter at lambing



To download these EverGraze Actions, go to the EverGraze web site www.evergraze.com.au
Click on Information, Fact Sheets and the link to the required information.

Events not to be missed!

Where	When	What	For further information
Bridgewater, Dundee	Wednesday 25th March	Part of the two day New England North West Landcare Adventure	Elisabeth Ozols Phone: (02) 6728 8048 Email: elisabeth.ozols@cma.nsw.gov.au
Matt Carter, 'Myall springs', Kelvin 30 km north of Gunnedah	Thursday 2nd April	Native pasture identification, quality and management options, pasture profit drivers, livestock performance and grazing habits, soil nutrient requirements and fertiliser options.	Simon Turpin, Ph: (02) 67 429 212 Mob: 0428 463 488 Email: simon.turpin@cma.nsw.gov.au
Mac Howarth, 'Carthian Hill' Tambar Springs 65km west of Gunnedah	Friday 27th March	Native pasture identification, quality and management options, pasture profit drivers, livestock performance and grazing habits, soil nutrient requirements and fertiliser options.	Simon Turpin, Ph: (02) 67 429 212 Mob: 0428 463 488 Email: simon.turpin@cma.nsw.gov.au
Rod Blake's "Illyra" 10km from Boorowa	Wednesday 8th April	Acacia browsing for worm control, Whole of paddock revegetation work.	Christian Wythes Ph: (02) 63 851 018 Mob: 0407 063 864 Email: christian.wythes@cma.nsw.gov.au