



Winter Pasture NRM Update

October 2013

Sustainable Pasture Challenge Paddock Grant

BIGG has been successful in receiving a 2013-14 State NRM Community grant to design and implement a cost effective, innovative, sustainable and productive pasture renovation program for unimproved, degraded and poor producing paddocks in the region.

Local producer groups including Angaston Ag Bureau, Koonunga Ag Bureau, North Rhine Sheep Group, Mount Pleasant Beef Group and Barossa Mid North Dairy Discussion Group, will 'challenge' each other to increase pasture productivity and achieve good NRM outcomes for six

nominated poor-producing paddocks in 2014.

Each producer group will work with BIGG's Technical Facilitators and local agronomists to develop a Pasture Management Plan that incorporates innovative pasture management techniques and sustainable land management practices. The Plan will be implemented and monitored throughout the season for productivity and improved land management practices. The Challenge concludes in spring 2014 when an independent agronomist will judge each paddock.

What's Next? - We'll be looking for opportunities to facilitate short discussion sessions (30 mins) with each of the "Challenge Groups" to commence the identification of a paddock, define its issues and develop the formative stage of the Pasture Management Plan. Let the Challenge begin!



Monitoring Soil Moisture in Barossa Grazing Systems Begins

This year BIGG received a 2013-14 Caring for Our Country, Community Landcare Grant, *Monitoring Soil Moisture to Improve Productivity and NRM in Grazing Systems*. By monitoring soil moisture, this project aims to assist livestock producers in making key management decisions, particularly when to de stock in dry-times and early finishing springs.

At the heart of the project is the setup of weather stations located in representative pasture paddocks throughout the Barossa. In September these were installed by Farmer Johns at Eden Valley (Michael Evans), Keyneton



Andrew and Peter Kleinig, hosts of the Koonunga soil moisture monitoring site with Adam Pietsch, Farmer Johns

(Graham Keynes) and Koonunga (Peter and Andrew Kleinig). At all three sites a sub-surface probe and an automatic rain gauge were installed. The soil probe measures soil moisture and soil temperature at 10cm intervals to a depth of 85cm (Eden Valley, Keyneton) and 125cm (Koonunga). In addition, a sensor measuring air temperature and relative humidity has been installed at the Keyneton site.

All equipment is connected to a solar powered telemetry unit that transmits data every 15 minutes via a mobile phone network to an internet server hosted by the company, EnviroPro Dielectrics.

Data downloaded from the server is then used to produce real-time graphs for each site. These can be viewed at the following links on the BIGG website:

- [Eden Valley](#)
- [Keyneton](#)
- [Koonunga](#)

The graphs for each site include an estimate of the amount of water remaining in the soil for pasture growth.

In addition, data from the Keyneton site has been used to produce a graph showing 'Delta T' which can assist producers in deciding if conditions are suitable for spraying or not. To help understand all information and

associated graphs from the downloaded data, refer to the Fact Sheet: [Interpreting Information from the BIGG Soil Moisture Monitoring Sites](#).

BIGG workshops and pasture walks will be facilitated throughout the course of the project to help local producers understand and utilise the data more effectively.

Dairy Effluent Management

On 4 October, BIGG facilitated a Pasture Walk incorporating two case studies involved in the *Barossa Sustainable Soils Project*, funded by the AMLR NRMB and supported by DairySA. One of these was at Murray and Ben Klemms property at Moculta which aims to determine the effect of long term effluent spreading on soil health and subsequent pasture production.

The Klemm's run a 200 head, Friesian herd with the effluent liquid and solids being collected in two dams located on farm. For the past 10 years, 7.3 million litres of liquid effluent has been sprayed annually (in March/April), across 98ha of cropping and pasture land. This equates to 74,000 litres/ha/year. Application of the liquid effluent is restricted by contractor availability, paddock access during the year (too muddy in winter) and the distance the contractor will travel from the dams to Klemm's paddocks. The remaining effluent solids

are kept on site until dry and sold off farm for compost.

Recent analysis of the liquid effluent highlighted its potential nutrient benefits as an alternative fertiliser. Key findings of the project include:

- Liquid effluent contains high levels of potassium, phosphorous and nitrates;
- Most potassium is in a plant available form, however would be easily leached when applied in March/April. Nitrogen is similar; and
- Soil tests showed no detrimental effect to the soil over time (this suggests the current application rate is not high enough to impact soil composition).

The cost benefit of applying liquid effluent may be improved through:

- Spring application (more beneficial to plant growth);
- Different application methods and rates; and



Ben Klemm, Moculta

- Applying to specific paddocks (hay vs pasture vs cropping).

Analysis of the solids component of the effluent and nutrient budgeting to compare with other alternative fertilisers would also like to be investigated.

From the INBOX

State Landcare conference

The 2013 SA Landcare conference is being held on 6-7 November in Adelaide.

See the [Landcare SA website](#)

Flystrike

With the temperature warming up, so are the flies. The FlyBoss website has a host of information about flystrike in sheep, including [FlyBoss tools](#) which allows you to assess its risk in the Barossa (based on climate records from the Nuri Viti Station).

Rappa case studies

Case studies from the RAPP Temporary Electric Fence Project have been completed and are now on the [BIGG website](#) (under the 'Resources' section). These were written by Daniel Schuppan, Landmark Animal Production Specialist. Check them out!

Lambex 2014

The sheep and lamb conference LambEx will be held in Adelaide on 9-11 July 2014. Its a while away, but producers should pop this one in their diary. See the [Lambex website](#)

Further Information

Technical Facilitator/ Coordinators

Brett Nietschke

0432 804 389

brett.nietschke@biggroup.org.au

Sarah Weaver

0430 713 639

sarah.weaver@biggroup.org.au

