

Thankyou to Peter and Raeleen Whip of Bandon Grove for opening their property and giving their time for this informtion day.

Upcoming Events Desert Channels Qld

Weedspotters Workshops

Desert Channels Queensland is holding a series of Weedspotters Workshops across the region over April and May. This workshop will provide the practical skills and background knowledge for weed collection. Techniques will include:

- What to collect
- Labelling and descriptive information
- Safety and hygiene issues
- Handling plants during collection
- How to pack a plant press
- Drying specimens
- Packing and posting specimens

For more information contact Ron Beezley on ph 07 4652 7827 mobile 0428 580 629 or email ron.beezley@dcq.org.au.

Blackall Innovations Forum

Tuesday 21 April, Blackall Cultural Centre 10am - 6pm

These days we need to think of innovative ways to improve our bottom line! Desert Channels Queensland, The Blackall BestPrac Group and Grazing Best Prac invite you to participate in the inaugural Blackall Innovations Forum to showcase the successes in the region for NRM practices. Presentations and displays will include:

- Gross margins, cattle and sheep
- Water and fencing development
- Satellite pasture monitoring
- Medicated water units
- Rotational grazing
- Remote water monitoring - telemetry
- Wild dog control
- Propert mapping/GPS
- Managing depression
- And much more

To request a flyer or for more information contact Colleen James on ph 07 4652 7826 mobile 0428 580 998 or email colleen.james@dcq.org.au.

Coming soon - 3 Cs Carbon and Climate Change Info Days

As a grazier how does climate change affect me? Industry experts clear up some of the myths surrounding carbon and climate change. Learn more about these topics and take the opportunity to get your questions answered.

Soil Information Day Thursday 19 March

Agenda Bandon Grove

9:00am	Smoko
9:30am	Ray O'Grady - It's time to focus on the importance of soil health in pasture production because 'we did not inherit the land from our ancestors - we are borrowing it from our children'.
11:30am	Peter Muller - Soil properties and Peter Burger rainfall simulation, Site One.
12:30pm	Lunch
1:00pm	Ray O'Grady - Understanding the grazed ecosystem to build a healthy soil, using regenerative grazing management.
3:00pm	Peter Muller - Soil properties and Peter Burger rainfall simulation, Site Two.
4:00pm	Talk to experts about your soil samples

What management decisions based on soil type can improve my ground cover and how does soil type impact on pasture production?

Ray O'Grady is a pasture agronomist and specialist in managing soil health. Ray has a wealth of experience in conventional and regenerative farming and specialises in managing soil health with a thorough knowledge of soil carbon and methods of improving carbon cycling. Ray has worked with innovative landholders to implement regenerative land management techniques that enhance biodiversity, increase biological activity, sequester carbon, activate soil nutrient cycles, restore water balance, improve productivity and create new topsoil.

Session One

It's time to focus on the importance of soil health in pasture production because 'we did not inherit the land from our ancestors - we are borrowing it from our children'.

- Introduction to soil health
- Learning from the legacies of the past
- Dirt: The erosion of civilisations
- Sustainability and the triple bottom line
- The way it all works - the carbon cycle and soil carbon

Session Two

Ray O'Grady - Understanding the grazed ecosystem to build a healthy soil, using regenerative grazing management.

- The rhizosphere
- Troubles in the rhizosphere.
- Plant exudates in the rhizosphere
- The grazed ecosystem
- Mycorrhizae and grazing management
- Effect of mycorrhizae on pasture growth and phosphorus uptake
- Regenerative grazing that builds soil carbon
- Microbial nutrient cycling

NRW's leading soil scientist Peter Muller has over 20 years soils experience throughout Australia with a wealth of knowledge of soil types and their properties that affect pasture production in central Queensland.

NRW field scientist Peter Burger will be demonstrating filtration, ponding and run-off characteristics of various soils with the rainfall simulator.

Paddock Session Field Site One

This first site is a scald that has developed after the sandy topsoil has been eroded. This has exposed the subsoil that is surface sealing and hard setting which prevents plants from establishing. The original topsoil was a loose, fine sand up to 0.15 m thick that was readily eroded by wind and water when the pasture cover was depleted. The soil properties of the scald are:

- The exposed subsoil is a coarsely structured, red clay that does not break down to finer soil particles that would allow a topsoil to reform.
- Hard setting and surface sealing.
- The upper subsoil has a neutral pH of 7.7, while the lower subsoil becomes alkaline with a pH of 8.0 to 9.3.
- Sodic (dispersive) subsoil impedes water movement.
- High subsoil salts limits rooting depth to 0.3 m.
- Water holding capacity limited to 50 mm.
- The red clay subsoil grades into the weathered sandstone below 1.2 m.
- Average original fertility - high phosphorous, but very low nitrogen and organic carbon.

Paddock Session Field Site Two

The soil at this site is a typical dark brown, cracking clay of the Mitchell grass open downs plains. Its main features are:

- Deep soil with >1.5 m of soil that overlies the weathered mudstone parent material.
- Strongly cracking = good initial water entry.
- Thick, fine self-mulching surface soil.
- Soil profile is alkaline throughout (pH 8.1 to 8.7).
- Strongly sodic (dispersive) subsoil below 0.3 m impedes water movement.
- Extremely high subsoil salts limits rooting depth to 0.5 m.
- Plant available water holding capacity is reduced to 85 mm.
- Moderate fertility with fair phosphorous, but low nitrogen and organic carbon.

The pasture is dominated by Mitchell grass with Flinders grass, button grasses and annual forbs. Some native legumes also occur.

Your soil sample analysis

- Talk to soil experts about your samples
- Run your soil samples through the rainfall simulator (number of samples analysed subject to time and water availability).
- pH and salt content testing

From a ground-cover point of view, what are the issues, limitations and benefits associated with a particular soil type?