

The SA Soils Scoop

with LUCY PORTER

Building networks and sharing knowledge about the health and management of South Australian soils

The SA Regional Soils Coordinator role is part of a national network of Regional Soil Coordinators (RSC), *supported by the Australian Government through funding from the Climate-Smart Agriculture Program under the Natural Heritage Trust.*

The Regional Soil Coordinators work across all levels of industry to understand stakeholder needs and engage with regional and national networks to build the knowledge base and capacity in soil management. The RSCs aim to help inform, protect and develop healthy soils within agricultural systems.

Hi There,

Welcome to the Spring 2026 edition of Soil Scoop.

Local Programs:

Regional Soil Coordinator Update

Soil baselining was the topic of focus for the McLaren Vale Grape Wine and Tourism Association workshop in July. Amanda Schapel of the Soil Collaboration Centre, led the hands on workshop investigating soil properties and discussing their influence on land management. Participants' brought along soil samples collected on farm and previous soil test analysis data to discuss as a group to interpret their results. The group worked through the EcoVineyards soil health indicators booklet and scorecard to learn about soil texture and structure. The workshop increased knowledge and confidence in undertaking field assessments that are cheap, easy and repeatable across seasons. Check out the EcoVineyards resources below for further information:

- Best practice management guides & related fact sheets | Ecovineyards
- Booklet Soil health indicators for Australian vineyards booklet | Ecovineyards

National Programs:

From the Smart Soil National Community of Practice

Regional Soil Coordinators congregated in Cairns for their biannual event to learn of soil management challenges and opportunities in sugar, banana, cover cropping and mixed species pastures across the wet tropics. The rainfall, climate and crops provided an incredible contrast to the farming undertaken in South Australia. The group also attended the Enhanced Rock Weathering (ERW) Symposium hosted by James Cook University. We are fortunate to have components of the ERW research here in SA, led by Adelaide University researchers with trials on Kangaroo Island. See their website for further information: Grain (Southern) | Enhanced Rock Weathering and catch up on the conference presentations on their YouTube channel: ERW - YouTube



Regional Soil Coordinators and Soil Science Australia National Extension team: Marita McGuirk, Bridget Watkins, Lucy Porter, Belinda Nielsen, Justine Cox, Dhiraj Gagera, Abigail Jenkins, (front) Cameron Leckie, Oscar Guidici.

Opportunities:

Soil strength:

If you have a penetrometer, Spring is a great time to take it out and test your soil strength. When the soil profile contains moisture, you can test the resistance of the soil strength to gain an understanding of how difficult or easy it is for plant roots to grow through the soil during their growing season. Check out Landscapes SA's penetrometer guide here: Soil-health_Penetrometer.pdf https://www.youtube.com/watch?v=njHQwMQTi5U

Some Landscape Boards have penetrometers which landowners may borrow to test around their properties, including Hills & Fleurieu, Northern and Yorke, Kangaroo Island, Limestone Coast and Murraylands and Riverland.



Dry saline land. Photo: Lucy Porter.

Soil Biology:
Soils are biologically active this time of the year while soil moisture is high and the soils begin warming up in Spring. If you are curious about soil biology, consider trying a cotton test strip experiment.

- Cut up a clean cotton rag cotton into strips
- Dig a hole 15cm deep and place your cotton in the soil lying flat
- Cover it with soil and mark your spot
- Set a reminder and dig them up 8 weeks later to have a look

Burying cotton and digging it up after 8 weeks gives you an idea of how biologically active your soil is over that period, as the microbes break down the carbon in the cotton and recycle it into the soil. Microbes are active in Spring when moisture is available and as the soil warms up. Try it in different areas and see how it compares. If you are into citizen science, you can do it with cotton underwear and upload your photo to Soil your undies! | CottonInfo

Soil In Profile

How is saline farmland impacted by this wet 2026, and what should you do to fix it?
Managing saline land can be quite complex, depending on the type and cause of the salinity. I had a chat with Chris McDonough to discuss the opportunities and considerations for managing salinity in this season, particularly regarding dry saline land and mallee seeps.

Dry Saline Land:
Dry saline land, or magnesia patches refers to areas where salts which are naturally present deeper in the soil profile have wicked up to the surface through extended drought periods, creating conditions that limit or prevent plant growth. Bare patches then lead to increased evaporation and high salt accumulation into the top 5 cm, which leaves them vulnerable to erosion and further degradation.

In wet seasons with high Autumn rainfall, dry saline land areas can improve and decrease in size. This is due to two processes:

1. Salts are temporarily leached slightly deeper as the water infiltrates through the soil profile
2. A dilution effect can decrease the salt toxicity to plants and seeds trying to grow or germinate in the soil

Wet seasons provide a great opportunity to improve these areas.
Rain events improve the soil conditions, increasing plant germination and soil cover. It is critical that this cover is maintained right through the following summer period. The wet soil profile has mobilised the salts, and trials have shown that even limited surface cover can significantly reduce the level of salt returning to the surface for the following season. Don't be complacent, use this year as an opportunity to maximise the cover.

The key is to keep the areas covered.

- Maintain stubble if cropping
- Keep stock off these areas particularly over the coming summer
- If you must graze the paddock, delay it until autumn if possible

Maintaining soil cover can lead to longer term improvements to these "Magnesia patches". Other practical rehabilitation strategies with farmer success stories are available at: msfp.org.au/dry-saline-land-2/

Mallee seeps:
Mallee seeps are saline patches which are formed when excess water from high rainfall periods build up within local catchments to form perched water tables above impervious clay layers within the soil profile. They are more prevalent since our modern farming systems have controlled deep rooted summer weeds.

Mallee seeps usually occur in low lying areas often at the base of sandhills and sometimes in mid-slopes where clay layers are closer to the surface. The degradation starts with waterlogging that kills plants and bares out patches. Although the water tables are often not saline, the wicking effect over summer brings some salt to the surface, and as the water then evaporates, over time more salt accumulates.



Mallee Seep before treatment, rapidly spreading. Photo: Chris McDonough.



The same Mallee seep after treatment with puccinenellia and surrounded by lucerne. Photo: Chris McDonough.

It is critical to identify and understand what the cause and type of salinity you have and are dealing with to ensure your management is effective. The Mallee Sustainable Farming guides can help you determine what type of salinity you may be dealing with, check them out here:

- Identification of Dry Saline Land (Magnesia Ground) - Mallee Sustainable Farming
- How to identify a Mallee Seep - Mallee Sustainable Farming

You may also want to consider:

- Identification of Creek Line Salinity - Mallee Sustainable Farming
- Identifying Regional Saline Groundwater Seeps - Mallee Sustainable Farming

Wet seasons such as 2026 can significantly increase the severity of this problem, however it also brings opportunity for managing them.

The 2 key steps to reversing the impacts of mallee seeps are to:

1. Establish living soil cover over any bare areas, as this not only provides soil cover which reduces evaporation, but it also means roots use the water at 40-50 cm depth so that it doesn't reach the surface. For highly saline areas, *Puccinellia* is an excellent salt tolerant grass that is easy to establish in a wet season like 2026, even when spread late, as it will thicken up over time. Once well established, highly saline land can return to healthy soil again.
2. Establish a high-water use strategy to dry up the perched water table. While there are numerous management options available, depending on several factors outlined on the Mallee Seeps Decision Tree: msfp.org.au/mallee-seeps-decision-tree/ Establishing a strip of lucerne around the immediate perimeter of seep scalds has been a very effective strategy, often resulting in completely drying up the perched water table within 18 months. While it may be getting too late to sow this year, other farmers have sown sorghum and millet very late (even after harvest in waterlogged areas) to achieve excellent outcomes in stopping the spread and reversing the potential salinisation.

Did you know:

A new GRDC – funded project is underway in SA to better understand dry saline soils (magnesia patches). The NGN Managing and Mitigating Dry Saline Soils (Magnesia Patches) in South Australia is being led by AIR EP.

The project has two key aims:

1. Understanding the distribution of dry saline soils and determine what they are costing farm businesses in lost production across South Australian cropping regions
2. Identify how to restore dry saline areas back to full production

This will be achieved by establishing and monitoring demonstration sites testing various management options under local conditions in regions across the state. The land management practices this project is targeting will include:

- Spreading sand or mineral mulch over affected areas
- Applying straw, compost or other organic matter to improve soil cover
- Sowing early after rainfall, when salts may have been pushed deeper into the soil profile
- Sowing on-row to target less salty zones
- Comparing more salt-tolerant crop types or varieties
- Keeping groundcover on affected areas over summer

Have your say: Dry saline soils survey

A key part of the project is a grower survey on dry saline soils.

The survey will help build a clearer picture of:

- How much land is affected
- How the problem has changed over time
- What it is costing farmers in lost income and wasted inputs
- What farmers have already tried
- Which management options look most promising
- Where further research and extension should focus

This survey is about **dry saline or magnesia patches** — not Mallee seeps or watertable-related salinity.

The survey will take around **10–15 minutes** to complete. Responses will be reported in a de-identified way, and the results will help guide future GRDC investment, trial work and extension activities. Click here to complete survey (Dry Saline Soils (Magnesia Patches) – Grower Survey 2026 – Fill in form).

If you would prefer to complete the survey over the phone, contact Naomi Scholz on 0428 540 670 and I can record your responses.

The NGN Managing and Mitigating Dry Saline Soils (Magnesia Patches) in South Australia, project code AIP2602-001RTX is funded by GRDC and led by AIR EP in collaboration with Northern and Yorke Landscape Board, Eyre Peninsula Landscape Board, Upper North Farming Systems, South Australian Research & Development Institute, Mallee Sustainable Farming, Agronomy Solutions and Insight Extension for Agriculture.

Soil Events Calendar

SEPTEMBER

1
- **Angaston Ag Bureau Steinert hay contracting visit -** Angaston Ag Bureau – Steinert Hay Contracting Visit

3
- **GRDC Sandy Soil Masterclass - Bowmans** eventbrite.com.au/e/grdc-sandy-soils-masterclass-tickets-1995404715218
- **Limestone Coast Landscape Board Vermiculture Systems for Soil Health – Allendale East** Vermiculture System to Improve Soil... | Limestone Coast Landscape Board

8
- **MSF Paddock to Paddock: exploring gazania and soil stabilisation – Loxton** Paddock to Paddock: exploring gazania and soil stabilisation
- **AIR EP Lower EP Crop Walk – Lower EP**
- **GRDC Harvester Setup Workshop – Kadina** grdc.com.au/events/list/2026/09/grdc-harvest-set-up-workshop-kadina

9
- **SARDI MAC annual field day – Minnipa**
- **MSF Harvester Set up Workshop – Moorlands** Harvester Set-up Workshop – Moorlands

11
- **UNFS Crop Walk – Jamestown** unfs.com.au/events/unfs-crop-walk-jamestown/

14
- **Far West Crop Comp & Stickybeak day - Penong** Far West Crop Comp & Sticky Beak Day

15
- **Hart Feld Site Hart Field Day - Hart**
- **Goode Ag Bureau Sticky Beak Day – Ceduna**

16
- **Buckleboo Farm Improvement Group Crop walk - Kimba** Buckleboo Farm Improvement Group Crop Walk
- **NSS Spring Field Day - TBA** facebook.com/NorthernSustainableSoils/
- **CTLAP Research Site Sticky Beak Tour – Moorlands and beyond** Research Site Sticky Beak Tour

18
- **Elliston Stickybeak Day – Elliston**
- **UNFS Crop Walk – Booleroo** unfs.com.au/events/unfs-crop-walk-booleroo/

24
- **MFMG Grain and Graze Field Day Western Flat**

25
- **UNFS Nelshaby Ag Bureau Crop Walk** unfs.com.au/events/unfs-nelshaby-ag-bureau-crop-walk/
- **MNHRZ Spring Field Day** Mid North High Rainfall Zone

29
- **AIR EP Regenerative Ag Forum – Ungarra** Regenerative Ag Forum

OCTOBER

1
- **MNHRZ Spring Field Day - Giles Corner** mnhrz.com.au/

6
- **Angaston Ag Bureau Henscke Winery Visit - Keyneton** Angaston Ag Bureau – Henschke Winery visit

11
- **Hart Field Site Spring twilight Walk – Hart** Hart Field Site Group - Spring Twilight Walk

13-15
- **Australian Almond Conference – Adelaide** Events Archive - Australian Almonds

16-17
- **State Landcare Conference – Murray Bridge** State Landcare Conference: Growing Strong Together - Landcare Association of South Australia Inc.

18
- **YISES Soil Quiz Night – Adelaide** 2026 Quiz Night - SA SJC

21
- **Livestock Advisor Essentials influence and Impact** mla.com.au/news-and-events/events-and-workshops/livestock-advisor-essentials-influence-and-impact2/

22
- **MFMG Conmurra Field Day and Soil CRC Presentation - Conmurra** Events - Conmurra Field Day and Soil CRC presentation

25
- **SAAL Central Australian Pastoral Bus Tour – Coober Pedy return** Central Australian Pastoral Bus Tour

28
- **MFMG and FAR Australia Field Day: Bool Lagoon and Straun** Events - MFMG and FAR Australia Field Day: Bool Lagoon and Struan

28-31
- **Soil Science Australia Australian Soil Judging Competition – Boorloo** (Perth) Soil Judging - Soil Science Australia

NOVEMBER

1-5
- **Soil Science Australia National Conference - Boorloo (Perth)** Soil Science Australia National Conference

DECEMBER

3
- **Save the date: World Soil Day Celebration - Waite Campus**

CONTACT ME FOR FURTHER INFORMATION:
Lucy Porter
Regional Soil Coordinator, SA Drought Resilience Adoption and Innovation Hub, Adelaide University
E lucy.porter@adelaide.edu.au

SMART SOILS FOR AGRICULTURE

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