

Coorong Saltland Pasture Redemption Project 2020 - 21

Technical and Engagement Components

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Funding Acknowledgement



National
Landcare
Program



This project is supported by the Coorong District Council and the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape Levies

Project Background

The Saltland Pasture Redemption Working Group, Coomandook Agricultural Bureau, Coorong Tatiara Local Action Plan, and the Coorong District Council have been working with the SA Murray Darling Basin Natural Resource Management Board and now the Murraylands and Riverland Landscapes Board since 2018 on the delivery of improved understanding of dryland salinity management through the delivery of the Coorong Saltland Pasture Redemption Project.

To date this project has delivered findings in the following areas;

- Improved understanding of recent increases in the area of dryland salinity
- Demonstrating the suitability of the salt tolerant legume Messina and other salt tolerant pastures in local conditions
- Re-instigation of regular monitoring of of the Coomandook Landcare Piezometer Network
- Improved knowledge and understanding of the importance of groundcover in saltland management
- Improved knowledge and understanding of the importance of flushing of salt from the soil surface to aid in establishment of salt tolerant pastures
- Ongoing promotion of saltland management techniques and understanding
- Demonstration of novel management techniques such as salt tolerant Fodder Beet

Project Outcomes – 2020 / 2021

PROJECT OUTCOMES – 2020 – 2021	
1	Undertake two groundwater bore monitoring runs in the Coomandook and Cooke Plains area. Monitoring has been conducted in Spring 2020 and will be conducted in Autumn 2021 for depth to water table and salinity at each of the selected monitoring bores. Data collected will add to past data collection from bores in the local area and will inform agronomic practices being undertaken as part of the project to increase groundcover on salt affected areas.
2	Saltland Pasture Redemption Tour reporting on results over recent years of the project.
3a	Conduct field trial sites including establishment, monitoring and reporting a. Use of groundcovers to test reduced salinity evapo-concentration over the summer period
3b	Conduct field trial sites including establishment, monitoring and reporting. b. Analysis of timing of seeding of salt tolerant pastures after several rainfall events (to test effect of rainfall flushing the topsoil against soil probe data).
4	Project results are to be reported at field days, sticky beak tours and other events as appropriate.
5	Event evaluation data
6	Value Add Activities

1. Groundwater Bore Monitoring

Project Activity

Undertake two groundwater bore monitoring runs in the Coomandook and Cooke Plains area. Monitoring has been conducted in Spring 2020 and will be conducted in Autumn 2021 for depth to water table and salinity at each of the selected monitoring bores. Data collected will add to past data collection from bores in the local area and will inform agronomic practices being undertaken as part of the project to increase groundcover on salt affected areas.

Project Outcome

Monitoring of the Coomandook / Cooke Plains Landcare Monitoring Network was carried out on 14th of October 2020 and 19th of April 2021. These results can be accessed at <https://www.coorong.sa.gov.au/council-services/coorong-tatiara-local-action-plan/soil-health-and-dryland-salinity/coorong-dryland-salinity-review-2019> under the heading **8. Watertable Trends and Graphs**, click on **8d Groundwater and Rainfall Trends – Coomandook Landcare Network locations and measurements**. Additional fields have been included for future monitoring rounds.

GPS LOCATION BASE – COOMANDOOK:

E: 6073775 N: 382188

2. Saltland Pasture Redemption Tour

Project Activity

Saltland Pasture Redemption Tour reporting on results over recent years of the project.

Project Outcome

The **Coomandook Agriculture Sticky Beak Tour** was held on Wednesday the 16th of September 2020 with Between 57 and 80 people attended this event with numbers varying at each site. This day included salinity management content, and content in regard to improving water use across the landscape through production improvements – see highlighted topics of relevance below.

This event was held across both sides of the Limestone Coast and Murraylands and Riverland Landscape Board boundary. With landholders from both regions in attendance.

Sites and topics covered on the tour included

pH & acidity trial, Veris Mapping

Plozza Ploughing and Delving

Pulse Check Legume Trial

Sheep feedlot & containment area

Fodder Beet and Kikuyu demo on saline ground

Inspection of established Kikuyu



Figure 1. Bednar Terraland deep ripper / delver / incorporator - with crumbling roller

The key speakers at this event were;

- Brian Hughes - Principal Consultant (soil & land management), PIRSA Rural Solutions
- Matt Howell – Agronomist, Coorong Platinum Ag
- Brendan Wallis – Pinion Advisory
- Navneet Agrawaal & Amanda Pearce - SARDI
- Tim Dunstan – Dunstan Ag
- Dr Mel Fraser – Soil and Land Management Consultant PIRSA Rural Solutions

and the hosting landholders; Kevin Lucas, Mark White, Alistair Ifould, Bradley Kleinig, Anthony Pfitzner,

and Tim Freak.

Key features of the day with salinity related content included was:

- Optimising plant health and water use by overcoming soil acidity
- Use of soil amelioration techniques to optimise plant health and water use
- Use of plozza ploughing on and immediately adjacent to saline areas
- Demonstration of Fodder Beet and Kikuyu Grass on saline and non saline areas

On line content – flyer, farm walk booklet

A report on this farm walk can be accessed on the Soil Events and Farm Walks page which can be accessed here <https://www.coorong.sa.gov.au/council-services/coorong-tatiara-local-action-plan/soil-health-and-dryland-salinity/soil-events-and-farm-walks>

The flyer and handout booklet from this event can be accessed at https://www.coorong.sa.gov.au/_data/assets/pdf_file/0024/758310/FINAL-BOOKLET-Coomy-Sticky-Beak-Tour-Wed-16th-September-2020.pdf#here

This includes the following saltland agronomy related content;

- Bednar Terraland deep ripper / delver / incorporator - with crumbling roller technical specifications
- Fodder Beet and Kikuyu on saline soil Coorong Tatiara Local Action Plan Fact Sheet

GPS LOCATION BASE – COOMANDOOK:

E: 6073775 N: 382188

Evaluation and survey data from the Coomandook Agriculture Bureau Sticky Beak Tour 2020 can be found in Appendice 2.

AG Production Update - Coomandook Ag Bureau

4.30pm start followed by Ag Bureau Meeting *includes BBQ tea*
 Wednesday 3rd March 2021

REGISTRATIONS for catering;
 tstrugnell@coorong.sa.gov.au or
 text on 0427 750 050
 Register by Friday 26th of Feb

What you will see & hear?

- Pulse Check Update and Report
- Update on results at Simmons & Lucas soil amendment sites
- Where to next with dryland salinity? - including automated monitoring
- NEW 4 YEAR PROJECT - MLA Improved Grazing production on Non Wetting Sands
What soil amendments do you want to try out?
Full program over the page



Figure 3:
 Dr Mel Fraser of PIRSA Rural Solutions speaking about plozza ploughing and deep ripping results on and adjacent to a saline site



Figure 2: Event Flyer

3. Conduct field trial sites including establishment, monitoring and reporting

Project Activity

3a) Use of groundcovers to test reduced salinity evapo-concentration over the summer period

Use of pasture cages and soil testing for a second year over 2020/2021 was carried out on salt tolerant pasture sites to compare surface salinity and carbon levels under maintained groundcover with areas of bare saline ground. This continued work in the area of determining the impact of soil cover on managing soil salinity. These results have been reported on to a range of groups over 2021 as detailed in section 4.

Project Background and Outcomes

Pasture cages remained installed for the second year on four saltland agronomy sites at Coomandook, Cooke Plains, and Meningie East on sites with the following pastures;

1. Messina (Cooke Plains)

GPS LOCATION

E: 6076711 N: 379670

2. Puccinellia and Messina (Cooke Plains)

GPS LOCATION

E: 6083520 N: 376029

3. Shot gun mix (Coomandook)

GPS LOCATION

E: 6074926 N: 378696

4. Salt Tolerant Lucerne (Meningie East)

GPS LOCATION

E: 6047767 N: 372946

The cages have been placed over a combination of bare saline and soil with groundcover. In March 2021 soil tests will be undertaken comparing soil salinity & carbon levels under bare and covered

ground. These results have been compared with the 2020 results and will further build on efficacy of the data.

A report covering this information can be found by clicking here <https://www.coorong.sa.gov.au/council-services/coorong-tatiara-local-action-plan/soil-health-and-dryland-salinity/saltland-pasture-redemption-project> and downloading the 'Saltland Pasture Redemption – Tips and Tools for Identifying and dealing with Saline Soils' 3. Use of groundcovers and providing microclimates

A newsletter article summarising this work is also provided in Appendice 1

[Saltland Pasture Redemption Project – what have we learned May 2020 GROUNDCOVER](#)

Project Activity

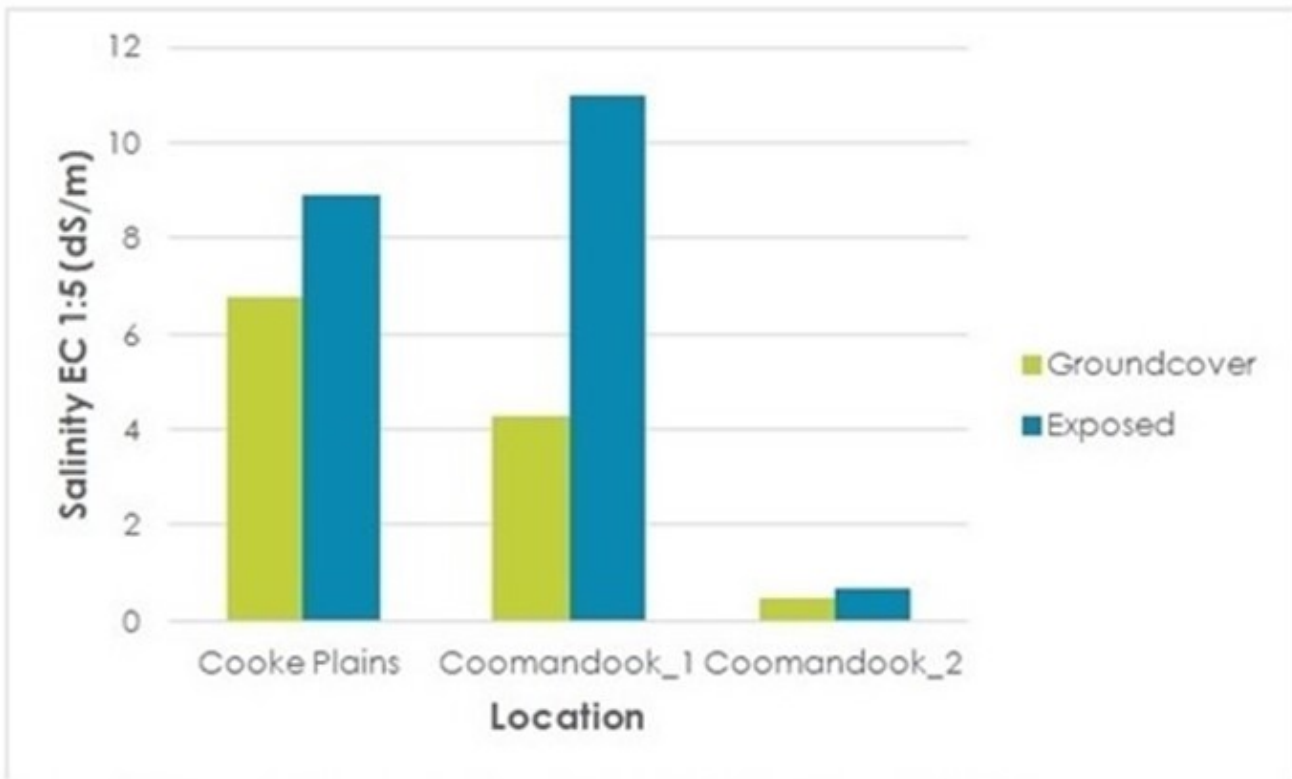
3b) Analysis of timing of seeding of salt tolerant pastures after several rainfall events (to test effect of rainfall flushing the topsoil against soil probe data).

Project Background and Outcomes

The time of sowing is critical in trying to remediate saline country. To improve the chances of plant germination, a 'flush' is thought to be required. In 2017-2018 this 'flush' wasn't received and there was poor germination across all sites. In 2019, exceptional germinations were observed on hostile, saline soils and the late time of sowing after the salts had flushed through the soil was thought to be the key difference driving this success. Work done over the 2018 – 2020 period indicated the effectiveness of the rainfall events in pushing water down through the profile (taking salts with it) – by aligning; rainfall events, soil moisture probe data, and saltland pasture germination.

This work carried out over the 2020/2021 year has continued to build the efficacy of the data.

A report covering this information can be found by clicking here <https://www.coorong.sa.gov.au/council-services/coorong-tatiara-local-action-plan/soil-health-and-dryland-salinity/saltland-pasture-redemption-project> and downloading the 'Saltland Pasture Redemption – Tips and Tools for Identifying and dealing with Saline Soils' 2. Time of Sowing.



Impact of groundcover on soil surface salinity (0-10cms), 2020

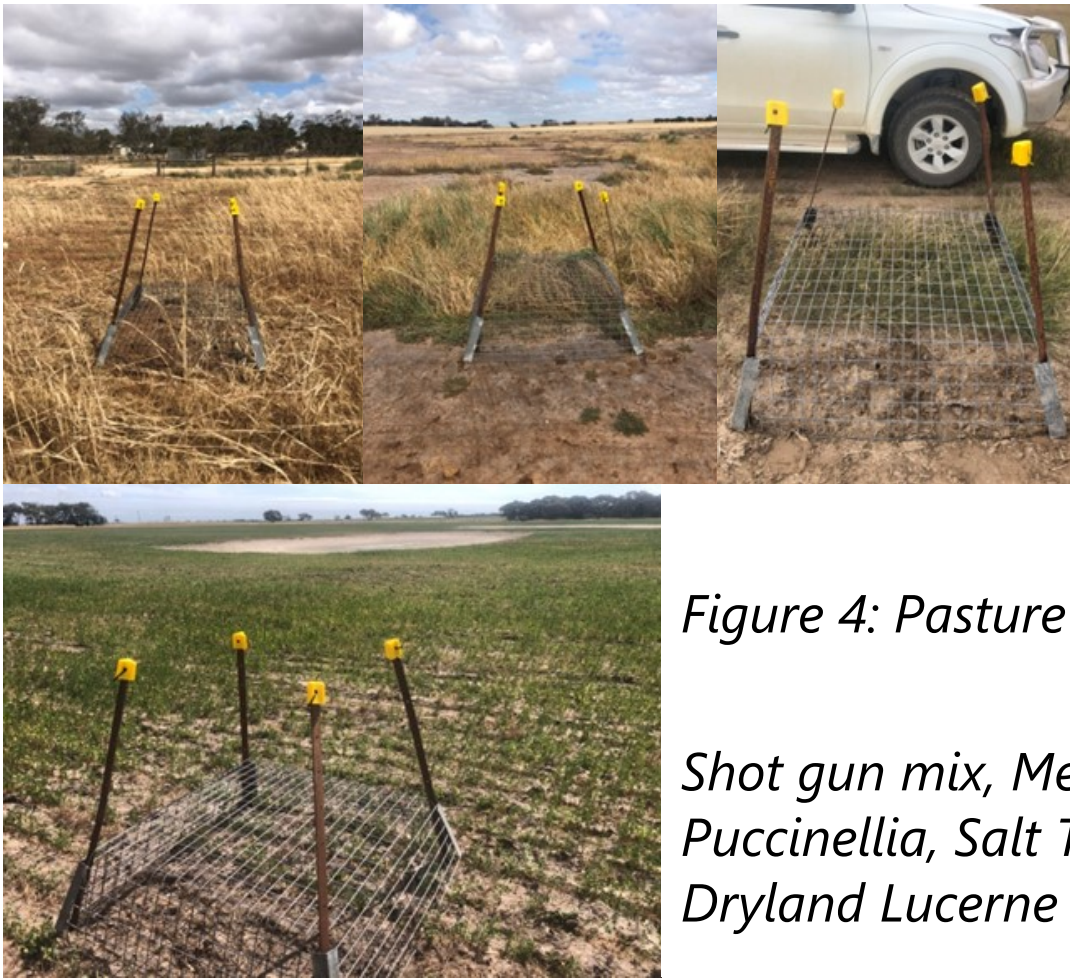


Figure 4: Pasture cages on -
Shot gun mix, Messina,
Puccinellia, Salt Tolerant
Dryland Lucerne

Project Discussion – 3a and 3b

Monitoring of long term demonstration sites

Monitoring of key long-term demonstration sites has been continued in 2020-21 with a good start to the 2020 winter assisting in germination and persistence of key species. The winter period was quite dry which may have assisted in reducing waterlogging (particularly at the Cooke Plains site) and by spring there was a large amount of groundcover; in particular that of *Puccinellia* which persisted over the summer period and has responded to early rainfall events in 2021.

Increased amounts of groundcover have been observed over the project time. This is particularly evident at the Cooke Plains demonstration site on Gypsum Road.

This site has been key in identifying issues and taking home key learnings particularly with regards to the key messages around groundcover, mixed swards and flushing effects. The photos below (Figures 5-9) show the site from 2017 – 2021 over which time approximately 90% groundcover has been achieved.

Early season observations in 2021 have suggested that the predominant species at the site is now *Puccinellia* (Figure 7), however there is the very occasional Neptune Messina plant germinating (Figure 8).

This observation was also made at some of the other sites where the Messina – which had been observed in previous seasons had not yet germinated. This may be due to a lack of rainfall and a late start to the season – this situation and the ability of Messina to persist in these environments will be monitored (particularly at the Simmons site). Further background on the long term monitoring and description of these sites can be found in Attachment 4.

Figure 5: 2017



Figure 6: 2019





Figures 7 8 9: 2021

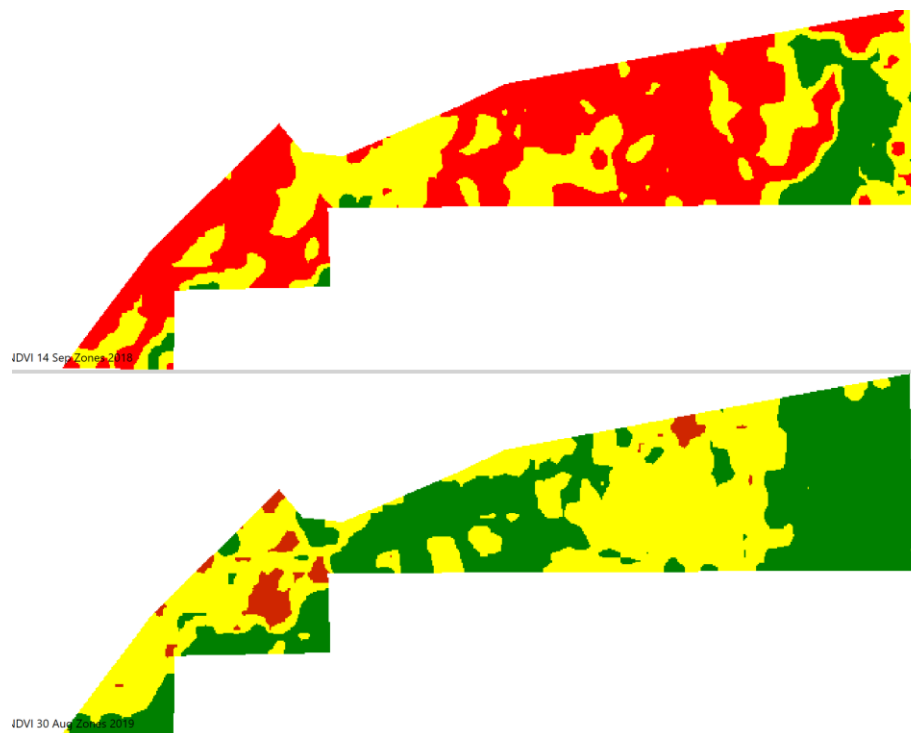


Normalised Differential Vegetative Index & Roby Downs Moisture Probe Data

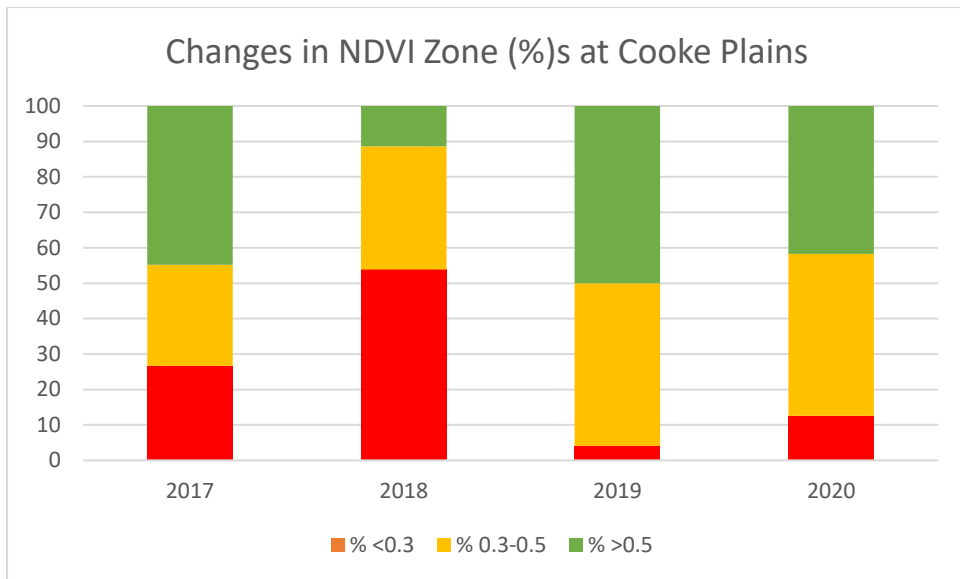
These visual observations are supported by spring NDVI (Normalised differential vegetative index) data (captured from 30th August to 15th September) each year where the changes show a decline in areas with a low NDVI value (with some seasonality).

The NDVI reflects the greenness of the area being analysed and low NDVI can be used as a measure of areas of low plant growth (bare or sparse areas). The comparative NDVI maps for 2018 and 2019 is shown in Figure 10 showing a decline in the low NDVI areas (red areas) in 2019 suggesting good levels of groundcover have been achieved.

This timing was chosen to measure groundcover as it was thought to accurately reflect the green areas vs those that are bare prior to seed set where the reflectance can be influenced by stage of the pasture species. Below Figure 10.



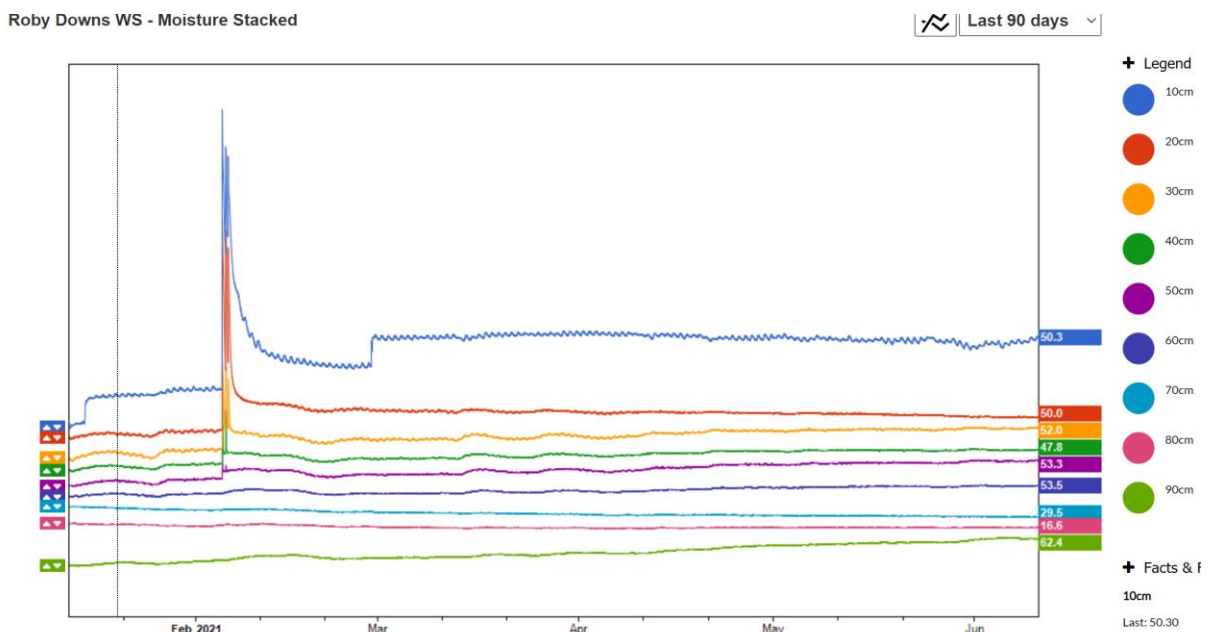
There is likely to be some seasonality in the data (depending on rainfall and seasonal conditions – this is observed in Figure 11 that shows the % change in NDVI zones across 4 seasons).



The seasonality still appears to be due to germination of new plants or annual species to be dependent on salinity levels being diluted and washed through with winter rainfall events.

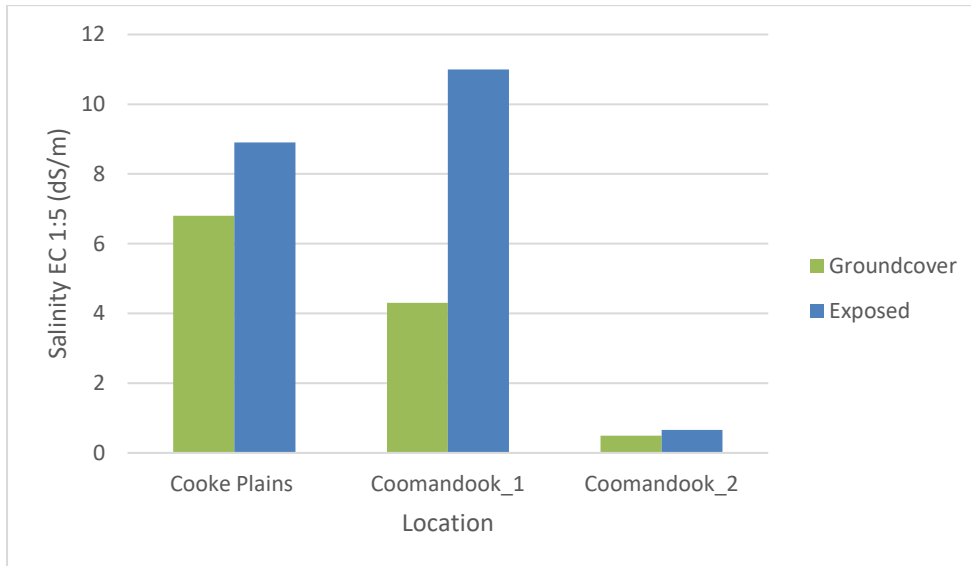
This is currently being explored further, however to date (in 2021) adequate rainfall has not been received (as shown by no increase in soil moisture at 20 cms at the NBN Roby Downs salinity soil moisture probe Figure 12).

Figure 12. Roby Downs stacked soil moisture probe data where there is no wetting front observed suggesting the salts are still probably sitting in the surface. Below: Figure 12.

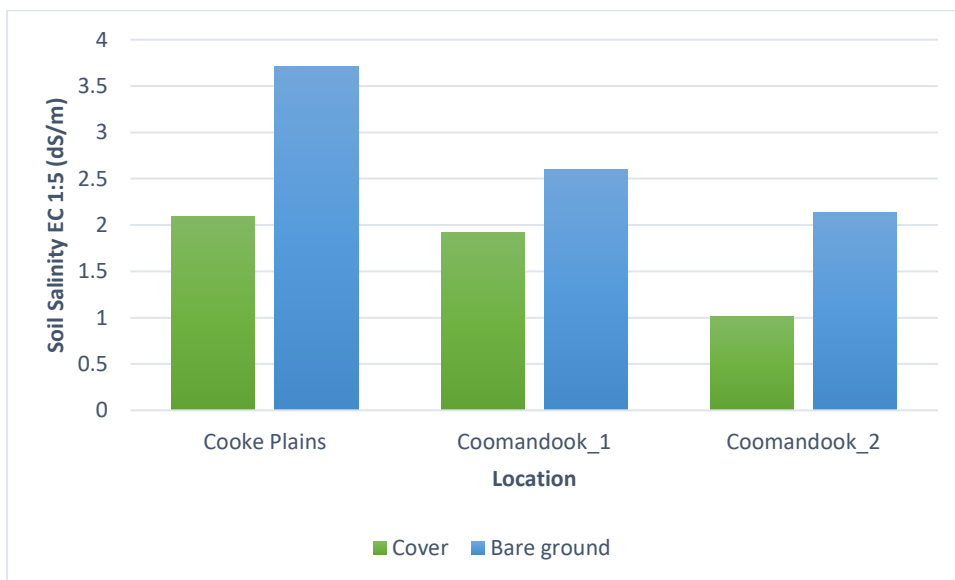


Groundcover vs Soil Salinity

The groundcover that was achieved across all sites in 2019 has also assisted in reducing surface salinity levels (thought to be through a reduction in heat at the surface and a subsequent reduction in the moisture being wicked to the surface as shown in Figure 13 below - 2019 data.



Soil sampling (0-10cms) in May showed similar results to those previously seen where the presence of groundcover assisted in reducing the soil salinity levels as shown in Figure 14. These sites will be revisited and resampled once the soil wetting front has increased to further explore the theory of the flushing effect. Figure 14 below - 2021 data.



4. Project results reported at field days, sticky beak tours and other events

Project Outcomes

Several addition salinity related workshops and were delivered in the first half of 2021 to raise awareness about the outcomes of this dryland salinity project including;

- Projects Update – Coomandook Ag Bureau Meeting – 10th February 2021, 25 in attendance
- Ag Production Update – Coomandook Ag Bureau -3rd of March 2021, 21 in attendance. A link to further information about this event can be found [here](#)
- Coorong District Local Action Plan – Salinity Projects Update – Tailem Bend, 21st of April 2021, 9 in attendance
- Soil Technical Update Meeting -Salinity Projects Update – Tailem Bend, 3rd of May 2021, 12 in attendance
- Mallee Seeps Technical Update Meeting – Loxton – 13 of May 2021 – 7 in attendance

Please see on the next page images from these events.

Evaluation and survey data from the Ag Production Update – Coomandook Ag Bureau -3rd of March 2021 can be found in Appendice 3.



*Figure 15 left and below:
The groups discusses Salinity
Project findings and monitoring
technology at the Coomandook
Ag Production Update*



*Figure 16 above: Felicity Turner speaks to the Coorong District Local Action
Plan Committee about Salinity Project findings*

5. Event evaluation data

Can be found in Appendice 2.

6. Value Add Activities

Fodder Beet Demonstration Site

A second year of the Fodder Beet trial is being conducted at Brad Kleing's property at Gypsum Road Cooke Plains. This site is supported by Coorong Tatiara Local Action Plan and Nutrien Ag Cooke Plans with technical support from Crop Mark Seeds.

This site provides a unique approach to showcase a method to increase groundcover and production on salt affected land. This technical report / fact sheet can be found in Appendix 5.

Although the fodder beet persisted well in 2020 as can be seen in the photos on the next page, the existing beet and new beet sown in 2020 did not persist nor germinate well into 2021 due to the dry start to the season.

[Fodder Beet and Kikuyu on Saline Soil Fact Sheet](#)

Or on line at <https://www.coorong.sa.gov.au/council-services/coorong-tatiara-local-action-plan/soil-health-and-dryland-salinity/saltland-pastures>

Fodder Beet Demonstration Paddock

GPS LOCATION

E: 6084000 N: 371276

Puccinellia and Messina Demonstration at Waltowa

Puccinellia and Messina seed was provided to Jacob Fiebig in May 2021 at Poltalloch to establish a small demonstration site. Due to the dry conditions at his time we recommended that Jacob wait for sufficient flushing of the soil surface prior to attemptation seeding a this site. CTLAP will remain in contact with Jacob in regard to this progress and monitoring of this site.

Puccinellia and Messina Demonstration

GPS LOCATION

E: 6060120 N: 352839



Coorong Tatiara
Sustainability, Agriculture & the Environment

Fodder Beet and Kikuyu on saline soil

This fact sheet covers the steps undertaken and results obtained from seeding Fodder Beet and Kikuyu on saline soils at Cooke Plains over the 2019 -2020 season

Site conditions
The Fodder Beet and Kikuyu demonstration site is located on Brad Kleinig's property, Gypsum Road Cooke Plains. The site is affected by dryland salinity, with sandy to heavy loam soils, with a coverage of volunteer samphire and annual grasses prior to seeding.
The soil ECe was in the range of 4-14 dS/m with a pH of 7.89. It is estimated that the saline unconfined aquifer is around 3 metres below the soil surface.
Left: Site pre seeding
Photo: Kleinig

Fodder Beet
Two varieties of Fodder Beet were sown on this site: Cropmark varieties Geronimo and Summo. Local producers were interested in trialing fodder beet after hearing about successful demonstrations occurring in the mid and lower South East. Several articles appeared in the Stock Journal over 2018 and 2019 about seeding fodder beet. Salt was being added to these sites as a treatment to amend site conditions to enhance establishment.
Geronimo originates from France. It has a yellow-orange tankard shaped bulb to that sits approximately 45% above the ground. The crop can be grazed in situ, or be lifted and fed whole or chopped. It is suitable for grazing by sheep and cattle.

Stock journal
Fodder beet may prove saline solution
LEFT: Stock Journal on the Fodder Beet article
RIGHT: Geronimo yellow orange tankard shaped bulb
Photo: Cropmark Seeds Ltd

Seeding technique
The site was deep ripped with a rabbit ripper and seeded with Geronimo and Summo Fodder Beet with a shearer track cuts drill with press wheels on the 19th of October 2019 following 20mm of rain.

Geronimo Fodder Beet Agronomic Traits	
Sowing season	Spring
Sowing rate (seeds/hectare)	80,000-100,000
Maturity (days to grazing)	200+
Bulb % above ground	+/- 45%
Dry Matter %	15 - 17%
Disease resistance	Very good

Summo Agronomic Traits	
Sowing season	Spring
Sowing rate (seeds / hectare)	80,000-100,000
Maturity (days to grazing)	200+
Bulb % above ground	+/- 40%
Dry Matter %	18 - 20%
Disease resistance	Very good



RIGHT: Summo large red conical shaped bulb
Photo: Cropmark Seeds Ltd

Figure 17 left: Image of the Fodder Beet and Kikuyu on Saline Soil Fact Sheet



Fig 18-20: Clockwise from top: Bradley Kleinig discussed the Fodder Beet and Kikuyu demonstration trial at the Saltland Pasture Redemption Tour component of the Coomandook Sticky Beak Tour 2020, Fodder Beet next to drink can, participants inspect the kikuyu and fodder beet demonstration

2019 sown fodder beet

Photos taken 15th June 2021



2020 sown fodder beet

Photos taken 15th June 2021



Figure 21-22 left hand column: Remnant fodder beet plants sown 2019

Figure 23-26 right hand column: Very sparse germination of plants sown 2020





Saltland Pasture Redemption Project – what we have learned

The Saltland Pasture Redemption Group and Project was initiated by the Coorong Tatiara Local Action Plan and Coomandook Ag Bureau to investigate the application of new developments in the productive use of saline land. [The background and current findings of this project can be accessed at the Saltland Pasture Redemption Project web page](#). This project has run concurrently with the Mallee Seeps Project.

With funding support from the National Landcare Program - Smart Farms Program, Natural Resources SA Murray Darling Basin, and Natural Resources South East, several questions and challenges were explored to more fully understand the impacts on salt tolerant pasture establishment and persistence. Planning sessions were held in late 2018 and early 2019 with participating landholders, agronomists, seed merchants, and Natural Resources SA Murray Darling Basin and South East to establish 8 demonstration sites to tackle the following saltland agronomy challenges;

- Staggered seeding of salt tolerant legume Messina after several rainfall events (to test effect of rainfall flushing the topsoil)
- Use of groundcovers to test reduced salinity evapo-concentration over the summer period
- Use of mounds and mechanical intervention to enhance establishment (microclimates)
- Establishment of new varieties in existing salt tolerant pasture stands
- Demonstration on a range of soil types

To read the **Final Report** summarising the findings of the Saltland Pasture Redemption Project please click here '[Saltland Pasture Redemption – Tips and Tools for Identifying and dealing with Saline Soils](#)'  (6372 kb)

To read a **record of the Saltland Pasture Redemption Project activities from 2017 to present day** please click here to access the [TECHNICAL NOTE Saltland Pasture Redemption Project Activities 2017-2020](#)  (8869 kb)



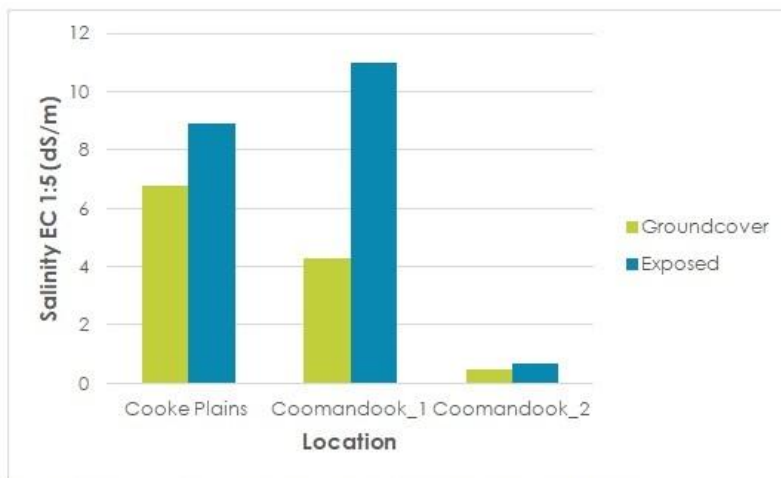
Left: Seedling salt tolerant legume Messina

In the next several newsletters we will focus on things we have learned over this project. Today we will look at [Use of groundcovers to test reduced salinity evapo-concentration over the summer period](#).

Throughout the life of this project, the areas where successful establishment of pastures on saline soils occurred were those where there was evidence of groundcover (green or dead plant material) or areas where the surface was slightly elevated.

We observed that retaining some level of groundcover over the summer period may be assisting in shading the area and reducing the evapo-concentration of salts in the soil over the summer period. In 2019-20 three sites were monitored to see if groundcover over the summer period provided any benefit to reduce the evapo-concentration / soil wicking of salt to assist in providing a less saline growing environment. Soil samples were taken on the 30th of January 2020 prior to a rainfall event.

The results can be found in the report ‘Saltland Pasture Redemption – Tips and Tools for Identifying and dealing with Saline Soils’ at <http://www.coorong.sa.gov.au/saltlandredemption> where it can be seen that the groundcover appeared to reduce the soil surface salinity levels across all sites both at the soil surface further down the profile emphasising the importance of trying to retain groundcover to reduce the level of salt scalding.



Impact of groundcover on soil surface salinity (0-10cms), 2020

In our next newsletter - Staggered seeding of salt tolerant legume Messina after several rainfall events (to test effect of rainfall flushing the topsoil)

Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Leonardook Ag. Hippy Day Your postcode: _____

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? _____

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 73 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				<input checked="" type="checkbox"/>	
The level of information/training was suitable for me				<input checked="" type="checkbox"/>	
The amount of information/training was suitable for me				<input checked="" type="checkbox"/>	
The <u>materials</u> (e.g. handouts and notes) are useful to me				<input checked="" type="checkbox"/>	
The training/workshop/event was <u>well conducted</u>				<input checked="" type="checkbox"/>	
I <u>learned</u> something from <u>interacting</u> with the other participants				<input checked="" type="checkbox"/>	
I would <u>recommend</u> this training to other people				<input checked="" type="checkbox"/>	
Participation in this training workshop has increased my:					
Awareness of the topic					
Knowledge of the topic				<input checked="" type="checkbox"/>	
Knowledge to change how I do things				<input checked="" type="checkbox"/>	
Skills in the topic					
Skills to change how I do things					
Capacity to make better decisions					
Commitment to change my management and/or adopt new practices					
How many Hectares or Acres will you adopt the practices on?	Ha or		Acres <u>300</u>		

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____

Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

encouraging me to deal with non wetting sands

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

More research into non wetting sand soils

Is there anything that could be added or changed to improve future events or any other comments?

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



National
Landcare
Program



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Coonambrook A.G. borea Sticky Beak tour Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 5000 acres

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 46 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				<input checked="" type="checkbox"/>	
The level of information/training was suitable for me				<input checked="" type="checkbox"/>	
The amount of information/training was suitable for me				<input checked="" type="checkbox"/>	
The <u>materials</u> (e.g. handouts and notes) are useful to me				<input checked="" type="checkbox"/>	
The training/workshop/event was <u>well conducted</u>				<input checked="" type="checkbox"/>	
I <u>learned</u> something from <u>interacting</u> with the other participants				<input checked="" type="checkbox"/>	
I would <u>recommend</u> this training to other people				<input checked="" type="checkbox"/>	
Participation in this training workshop has increased my:					
Awareness of the topic				<input checked="" type="checkbox"/>	
Knowledge of the topic				<input checked="" type="checkbox"/>	
Knowledge to change how I do things			<input checked="" type="checkbox"/>		
Skills in the topic			<input checked="" type="checkbox"/>		
Skills to change how I do things			<input checked="" type="checkbox"/>		
Capacity to make better decisions			<input checked="" type="checkbox"/>		
Commitment to change my management and/or adopt new practices			<input checked="" type="checkbox"/>		
How many Hectares or Acres will you adopt the practices on?			Ha or	<u>100</u> Acres	

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

How Delving works, How it can help
crop growth

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

clay incorporation

Is there anything that could be added or changed to improve future events or any other comments?

N/A

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Coonambook Stick Beck Day Your postcode: 5301

Please tick if you are:

- Primary Producer
- Land Manager
- Farm Worker
- Researcher
- Agronomist
- Agricultural Advisor
- Agricultural sales
- Project Officer
- nrm Professional
- Government Employee
- Other:

What is the size of the property you manage? 1200 ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 52 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was <u>well conducted</u>				✓	
I <u>learned something</u> from <u>interacting</u> with the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things				✓	
Skills in the topic			✓	✓	
Skills to change how I do things			✓	✓	
Capacity to make better decisions			✓		
Commitment to change my management and/or adopt new practices			✓		
How many Hectares or Acres will you adopt the practices on?	Ha or		Acres		

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: Philip Smith Phone: _____

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Soil information

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Everything

Is there anything that could be added or changed to improve future events or any other comments?

Well Run event

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



National Landcare Program



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: _____ Your postcode: 5266

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 2000 H

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 70 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				<input checked="" type="checkbox"/>	
The level of information/training was suitable for me				<input checked="" type="checkbox"/>	
The amount of information/training was suitable for me				<input checked="" type="checkbox"/>	
The <u>materials</u> (e.g. handouts and notes) are useful to me				<input checked="" type="checkbox"/>	
The training/workshop/event was <u>well conducted</u>				<input checked="" type="checkbox"/>	
I <u>learned</u> something from <u>interacting</u> with the other participants				<input checked="" type="checkbox"/>	
I would <u>recommend</u> this training to other people				<input checked="" type="checkbox"/>	
Participation in this training workshop has increased my:					
Awareness of the topic				<input checked="" type="checkbox"/>	
Knowledge of the topic				<input checked="" type="checkbox"/>	
Knowledge to change how I do things				<input checked="" type="checkbox"/>	
Skills in the topic				<input checked="" type="checkbox"/>	
Skills to change how I do things				<input checked="" type="checkbox"/>	
Capacity to make better decisions				<input checked="" type="checkbox"/>	
Commitment to change my management and/or adopt new practices				<input checked="" type="checkbox"/>	
How many Hectares or Acres will you adopt the practices on?	100 Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: Tom Haas Phone: 0427 847913

Email: _____

Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: _____ Your postcode: _____

Please tick if you are:

- | | | |
|---|---|--|
| <input type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input checked="" type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 2500

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 47 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me					<input checked="" type="checkbox"/>
The level of information/training was suitable for me					<input checked="" type="checkbox"/>
The amount of information/training was suitable for me					<input checked="" type="checkbox"/>
The <u>materials</u> (e.g. handouts and notes) are useful to me					<input checked="" type="checkbox"/>
The training/workshop/event was <u>well conducted</u>					<input checked="" type="checkbox"/>
I <u>learned</u> something from <u>interacting</u> with the other participants					<input checked="" type="checkbox"/>
I would <u>recommend</u> this training to other people					<input checked="" type="checkbox"/>
Participation in this training workshop has increased my:					
Awareness of the topic					<input checked="" type="checkbox"/>
Knowledge of the topic					<input checked="" type="checkbox"/>
Knowledge to change how I do things					<input checked="" type="checkbox"/>
Skills in the topic					<input checked="" type="checkbox"/>
Skills to change how I do things					<input checked="" type="checkbox"/>
Capacity to make better decisions					<input checked="" type="checkbox"/>
Commitment to change my management and/or adopt new practices					<input checked="" type="checkbox"/>
How many Hectares or Acres will you adopt the practices on?	Ha or				Acres

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____

Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

The experience

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Everything

Is there anything that could be added or changed to improve future events or any other comments?

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: COOMY STICKY BEACH DAY Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 4000 ha

Please indicate:

- 1) What gender do you identify as? Male Female
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 49 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				/	
The level of information/training was suitable for me				/	
The amount of information/training was suitable for me				/	
The <u>materials</u> (e.g. handouts and notes) are useful to me				/	
The training/workshop/event was <u>well conducted</u>				/	
I <u>learned</u> something from <u>interacting</u> with the other participants				/	
I would <u>recommend</u> this training to other people				/	
Participation in this training workshop has increased my:					
Awareness of the topic				/	
Knowledge of the topic				/	
Knowledge to change how I do things				/	
Skills in the topic			/		
Skills to change how I do things				/	
Capacity to make better decisions				/	
Commitment to change my management and/or adopt new practices				/	
How many Hectares or Acres will you adopt the practices on?	<u>200</u> Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Delving
Containment feeding

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Sheep Stocking rates/feeding etc

Is there anything that could be added or changed to improve future events or any other comments?

More beer,

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

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Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Sticky beak tour Your postcode: 5261

Please tick if you are:

- | | | |
|---|--|--|
| <input type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input checked="" type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? _____

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 22 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me					✓
The level of information/training was suitable for me					✓
The amount of information/training was suitable for me					✓
The <u>materials</u> (e.g. handouts and notes) are useful to me					✓
The training/workshop/event was <u>well conducted</u>					✓
I <u>learned something</u> from <u>interacting</u> with the other participants					✓
I would <u>recommend</u> this training to other people					✓
Participation in this training workshop has increased my:					
Awareness of the topic					✓
Knowledge of the topic					✓
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices				✓	
How many Hectares or Acres will you adopt the practices on?	Unsure Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____

Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Learning about issues/concerns in the district.
Where farmers are looking to improve.

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

All. As a new kid on the block I'd like to learn as much as possible.

Is there anything that could be added or changed to improve future events or any other comments?

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

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Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Coonambidge/Coonambidge Sticky Hand Bar Your postcode: 5266 + 5066

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input checked="" type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 1200 HA

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 66 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				X	
The level of information/training was suitable for me				X	
The amount of information/training was suitable for me				X	
The <u>materials</u> (e.g. handouts and notes) are useful to me				X	
The training/workshop/event was <u>well conducted</u>					X
I <u>learned something</u> from <u>interacting</u> with the other participants					X
I would <u>recommend</u> this training to other people					X
Participation in this training workshop has increased my:					
Awareness of the topic					X
Knowledge of the topic				X	
Knowledge to change how I do things				X	
Skills in the topic				X	
Skills to change how I do things				X	
Capacity to make better decisions				X	
Commitment to change my management and/or adopt new practices				X	
How many Hectares or Acres will you adopt the practices on?	? Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: GEOFF MOTT Phone: _____

Email: _____

Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

UNDERSTANDING PM

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

UNDER 2 THIS YEAR

Is there anything that could be added or changed to improve future events or any other comments?

THIS WAS VERY WELL PRESENTED.

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

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Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Sticky Beak Your postcode: 5267
 Please tick if you are:

- Primary Producer
- Land Manager
- Farm Worker
- Researcher
- Agronomist
- Agricultural Advisor
- Agricultural sales
- Project Officer
- nrm Professional
- Government Employee
- Other:

What is the size of the property you manage? 1950 ac

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 28 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me			✓		
The training/workshop/event was <u>well conducted</u>				✓	
I <u>learned</u> something from <u>interacting</u> with the other participants					✓✓
I would <u>recommend</u> this training to other people					✓
Participation in this training workshop has increased my:					
Awareness of the topic				✓✓	
Knowledge of the topic				✓✓	
Knowledge to change how I do things				✓✓	
Skills in the topic				✓✓	
Skills to change how I do things				✓✓	
Capacity to make better decisions				✓✓	
Commitment to change my management and/or adopt new practices				✓✓	
How many Hectares or Acres will you adopt the practices on?	Ha or <u>1900</u> Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____

Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

pH trial & application to issues
on farm

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

pH economics

Is there anything that could be added or changed to improve future events or any other comments?

Some more info on pulse trial &
nitrogen fixation

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Shokey beak Tour Your postcode: 8267

Please tick if you are:

- | | | |
|---|---|--|
| <input type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 1500 Ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 29 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me					<input checked="" type="checkbox"/>
The level of information/training was suitable for me					<input checked="" type="checkbox"/>
The amount of information/training was suitable for me					<input checked="" type="checkbox"/>
The <u>materials</u> (e.g. handouts and notes) are useful to me					<input checked="" type="checkbox"/>
The training/workshop/event was <u>well conducted</u>					<input checked="" type="checkbox"/>
I <u>learned</u> something from <u>interacting</u> with the other participants					<input checked="" type="checkbox"/>
I would <u>recommend</u> this training to other people					<input checked="" type="checkbox"/>
Participation in this training workshop has increased my:					
Awareness of the topic					<input checked="" type="checkbox"/>
Knowledge of the topic					<input checked="" type="checkbox"/>
Knowledge to change how I do things					<input checked="" type="checkbox"/>
Skills in the topic					<input checked="" type="checkbox"/>
Skills to change how I do things					<input checked="" type="checkbox"/>
Capacity to make better decisions					<input checked="" type="checkbox"/>
Commitment to change my management and/or adopt new practices					<input checked="" type="checkbox"/>
How many Hectares or Acres will you adopt the practices on?	Ha or		Acres		

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____

Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Benefits of deep ripping for compacted soils

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

regenerative agriculture

Is there anything that could be added or changed to improve future events or any other comments?

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: COOMAN DOCK Your postcode: 5266

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 5000 HA.

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 77 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me					
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was <u>well conducted</u>					✓
I <u>learned something</u> from <u>interacting</u> with the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic					
Knowledge of the topic					✓
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	✓
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices					
How many Hectares or Acres will you adopt the practices on?	<u>400</u> Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: R M'CARB Phone: 0428822408

Email: bob @ aerytech.net.au

Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

DRAINING, SALINE PASTURE ESTABLISHMENT

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

PASTURE FOR SALINE AREAS

Is there anything that could be added or changed to improve future events or any other comments?

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Camadook Ag Besar Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 2000HA

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 52 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				<input checked="" type="checkbox"/>	
The level of information/training was suitable for me				<input checked="" type="checkbox"/>	
The amount of information/training was suitable for me				<input checked="" type="checkbox"/>	
The <u>materials</u> (e.g. handouts and notes) are useful to me				<input checked="" type="checkbox"/>	
The training/workshop/event was <u>well conducted</u>				<input checked="" type="checkbox"/>	
I <u>learned</u> something from <u>interacting</u> with the other participants				<input checked="" type="checkbox"/>	
I would <u>recommend</u> this training to other people				<input checked="" type="checkbox"/>	
Participation in this training workshop has increased my:					
Awareness of the topic				<input checked="" type="checkbox"/>	
Knowledge of the topic				<input checked="" type="checkbox"/>	
Knowledge to change how I do things				<input checked="" type="checkbox"/>	
Skills in the topic				<input checked="" type="checkbox"/>	
Skills to change how I do things				<input checked="" type="checkbox"/>	
Capacity to make better decisions				<input checked="" type="checkbox"/>	
Commitment to change my management and/or adopt new practices				<input checked="" type="checkbox"/>	
How many Hectares or Acres will you adopt the practices on?	Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Benefit of Delvity.

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Is there anything that could be added or changed to improve future events or any other comments?

No event was Ran well

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



National
Landcare
Program



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Sticky Beak Tour Your postcode: 5301

Please tick if you are:

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input checked="" type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input checked="" type="checkbox"/> Other: |

What is the size of the property you manage? 1000 acres

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 41 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me					✓
The level of information/training was suitable for me					✓
The amount of information/training was suitable for me					✓
The <u>materials</u> (e.g. handouts and notes) are useful to me					✓
The training/workshop/event was <u>well conducted</u>					✓
I <u>learned something</u> from <u>interacting</u> with the other participants					✓
I would <u>recommend</u> this training to other people					✓
Participation in this training workshop has increased my:					
Awareness of the topic					✓
Knowledge of the topic					✓
Knowledge to change how I do things					✓
Skills in the topic					✓
Skills to change how I do things					✓
Capacity to make better decisions					✓
Commitment to change my management and/or adopt new practices					✓
How many Hectares or Acres will you adopt the practices on?	Ha or <u>1000</u> Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Time discussion - potential for future
crushing plant locally - economic development
opportunity?

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Diversifying, livestock nutrition,
problem stock disease & biosecurity

Is there anything that could be added or changed to improve future events or any other comments?

- Phone etiquette - turn to silent, also sit in vehicle if you must take a call.
- Speakers to have portable PA. - Hard to hear.
- Trial plots to be clearly defined

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Coonung Sticky Beak Your postcode: 5374

Please tick if you are:

- Primary Producer
- Land Manager
- Farm Worker
- Researcher
- Agronomist
- Agricultural Advisor
- Agricultural sales
- Project Officer
- nrm Professional
- Government Employee
- Other:

What is the size of the property you manage? 1000ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 45 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me					<input checked="" type="checkbox"/>
The level of information/training was suitable for me					<input checked="" type="checkbox"/>
The amount of information/training was suitable for me				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
The <u>materials</u> (e.g. handouts and notes) are useful to me				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
The training/workshop/event was <u>well conducted</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
I <u>learned something</u> from <u>interacting</u> with the other participants				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
I would <u>recommend</u> this training to other people					<input checked="" type="checkbox"/>
Participation in this training workshop has increased my:					
Awareness of the topic				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Knowledge of the topic					<input checked="" type="checkbox"/>
Knowledge to change how I do things				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Skills in the topic				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Skills to change how I do things				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Capacity to make better decisions				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Commitment to change my management and/or adopt new practices				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
How many Hectares or Acres will you adopt the practices on?	<u>2100</u> Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: Anthony Phone: 0829 81987

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Deep Rippling Plazzer
Dr Mel!

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Is there anything that could be added or changed to improve future events or any other comments?

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



National Landcare Program



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Coomandook Ag Bureau Tour Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input checked="" type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 4000 Ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 50 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The materials (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was well conducted				✓	
I learned something from interacting with the other participants				✓	
I would recommend this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices				✓	
How many Hectares or Acres will you adopt the practices on?	200 Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Clay incorporation on non-wetting
sands

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

More research on non-wetting sands

Is there anything that could be added or changed to improve future events or any other comments?

-

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

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Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: _____ Your postcode: 5301

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 2500 HA

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 39 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				/	
The level of information/training was suitable for me				/	
The amount of information/training was suitable for me				/	
The <u>materials</u> (e.g. handouts and notes) are useful to me			/	/	
The training/workshop/event was <u>well conducted</u>				/	
I <u>learned</u> something from <u>interacting</u> with the other participants				/	
I would <u>recommend</u> this training to other people				/	
Participation in this training workshop has increased my:				/	
Awareness of the topic				/	
Knowledge of the topic				/	
Knowledge to change how I do things				/	
Skills in the topic				/	
Skills to change how I do things				/	
Capacity to make better decisions				/	
Commitment to change my management and/or adopt new practices				/	
How many Hectares or Acres will you adopt the practices on?	Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: A. Thomas Phone: _____

Email: _____

Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: STICKY BEAK TOUR Your postcode: 5266

Please tick if you are:

- | | | |
|---|---|--|
| <input type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input checked="" type="checkbox"/> Other: |

What is the size of the property you manage? N/A

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 72 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	✓
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me					✓
The training/workshop/event was <u>well conducted</u>					✓✓
I <u>learned</u> something from <u>interacting with</u> the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things					✓
Skills in the topic				✓	
Skills to change how I do things					✓
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices					✓
How many Hectares or Acres will you adopt the practices on?	Ha or <u>278</u> Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____

Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

THE IMPORTANCE OF SOIL & POSSIBLE RESIDUAL
FROM CHEMICAL SPRAYING

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

YES ANY KNOWLEDGE WITH PRACTICABLE
DEMONSTRATION IS INVALUABLE

Is there anything that could be added or changed to improve future events or any other comments?

NO WELL RUN INFORMATIVE DAY

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Coony Crop Walk Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 4000ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 54 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me	✓				
The level of information/training was suitable for me	✓				
The amount of information/training was suitable for me	✓				
The <u>materials</u> (e.g. handouts and notes) are useful to me	✓				
The training/workshop/event was <u>well conducted</u>	✓				
I <u>learned</u> something from <u>interacting</u> with the other participants	✓				
I would <u>recommend</u> this training to other people	✓				
Participation in this training workshop has increased my:					
Awareness of the topic	✓				
Knowledge of the topic	✓				
Knowledge to change how I do things	✓				
Skills in the topic	✓				
Skills to change how I do things	✓				
Capacity to make better decisions	✓				
Commitment to change my management and/or adopt new practices	✓				
How many Hectares or Acres will you adopt the practices on?	✓				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: Tim Freak Phone: 0407972470

Email: tim@booderoo.com.au

Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

How to deal with low soil Ph.

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Brazing Management

Is there anything that could be added or changed to improve future events or any other comments?

Great day, thanks very much.

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



National Landcare Program



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Crop Walk Your postcode: 5301

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input checked="" type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 3000 Acres

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 37 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me	✓				
The level of information/training was suitable for me	✓				
The amount of information/training was suitable for me	✓				
The <u>materials</u> (e.g. handouts and notes) are useful to me	✓				
The training/workshop/event was <u>well conducted</u>	✓				
I <u>learned something</u> from <u>interacting</u> with the other participants	✓				
I would <u>recommend</u> this training to other people	✓				
Participation in this training workshop has increased my:					
Awareness of the topic	✓				
Knowledge of the topic	✓				
Knowledge to change how I do things	✓				
Skills in the topic	✓				
Skills to change how I do things	✓				
Capacity to make better decisions	✓				
Commitment to change my management and/or adopt new practices	✓				
How many Hectares or Acres will you adopt the practices on?	<u>40</u> Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: Andrew Littlefield Phone: 0428175977

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

learnt about deep Ripper

Plowza Ploughs

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Ripping - mixing clay/soil

Is there anything that could be added or changed to improve future events or any other comments?

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Coomy Your postcode: 5265

Please tick if you are:

- Primary Producer
- Land Manager
- Farm Worker
- Researcher
- Agronomist
- Agricultural Advisor
- Agricultural sales
- Project Officer
- nrm Professional
- Government Employee
- Other:

What is the size of the property you manage? 1200 acres

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 44 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				<input checked="" type="checkbox"/>	
The level of information/training was suitable for me				<input checked="" type="checkbox"/>	
The amount of information/training was suitable for me				<input checked="" type="checkbox"/>	
The materials (e.g. handouts and notes) are useful to me				<input checked="" type="checkbox"/>	
The training/workshop/event was <u>well conducted</u>				<input checked="" type="checkbox"/>	
I <u>learned something</u> from <u>interacting</u> with the other participants				<input checked="" type="checkbox"/>	
I would <u>recommend</u> this training to other people				<input checked="" type="checkbox"/>	
Participation in this training workshop has increased my:					
Awareness of the topic				<input checked="" type="checkbox"/>	
Knowledge of the topic				<input checked="" type="checkbox"/>	
Knowledge to change how I do things				<input checked="" type="checkbox"/>	
Skills in the topic				<input checked="" type="checkbox"/>	
Skills to change how I do things				<input checked="" type="checkbox"/>	
Capacity to make better decisions				<input checked="" type="checkbox"/>	
Commitment to change my management and/or adopt new practices				<input checked="" type="checkbox"/>	
How many Hectares or Acres will you adopt the practices on?	Ha or		Acres		

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Mallee Bus Tour Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 1600 ha.

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 77 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The materials (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was <u>well conducted</u>				✓	
I <u>learned</u> something from <u>interacting</u> with the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices				✓	
How many Hectares or Acres will you adopt the practices on?	1600 Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: _____ Phone: 0427 648215

Email: _____



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: MALBE BUS TOUR Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 800 HA

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 62 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me			✓		
The level of information/training was suitable for me		✓			
The amount of information/training was suitable for me			✓		
The <u>materials</u> (e.g. handouts and notes) are useful to me		✓			
The training/workshop/event was <u>well conducted</u>			✓		
I <u>learned</u> something from <u>interacting</u> with the other participants			✓		
I would <u>recommend</u> this training to other people		✓			
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic			✓		
Knowledge to change how I do things			✓		
Skills in the topic				✓	
Skills to change how I do things		✓			
Capacity to make better decisions			✓		
Commitment to change my management and/or adopt new practices			✓		
How many Hectares or Acres will you adopt the practices on?	_____ Ha or _____ Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Mallee Bus Tour Your postcode: _____

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 6000 ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 68 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was <u>well conducted</u>				✓	
I <u>learned something</u> from <u>interacting</u> with the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices				✓	
How many Hectares or Acres will you adopt the practices on?	<u>6000</u> Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: GARRY HANSEN Phone: 0427 390 626

Email: garry@hansenfarms.com.au



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Tweaking our management of feedlot

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Is there anything that could be added or changed to improve future events or any other comments?

No

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: _____ Your postcode: _____

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 4600 4500 ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 31 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was <u>well conducted</u>				✓	
I <u>learned something</u> from <u>interacting with</u> the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices				✓	
How many Hectares or Acres will you adopt the practices on?	Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Farm Tour Your postcode: _____

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input checked="" type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input checked="" type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 3000 acres

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 32 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was <u>well conducted</u>				✓	
I <u>learned something</u> from <u>interacting</u> with the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices				✓	
How many Hectares or Acres will you adopt the practices on?	Ha or <u>TBA</u> Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: Ben Waldron Phone: [scribble]

Email: _____



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: _____ Your postcode: _____

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 2200ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 16 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was <u>well conducted</u>				✓	
I <u>learned something</u> from <u>interacting</u> with the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices				✓	
How many Hectares or Acres will you adopt the practices on?	Ha or		Acres		

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Seeing new things

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Is there anything that could be added or changed to improve future events or any other comments?

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: _____ Your postcode: _____

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 2200 ha.

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 49 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was <u>well conducted</u>				✓	
I <u>learned something</u> from <u>interacting with</u> the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices				✓	
How many Hectares or Acres will you adopt the practices on?					

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

seeing different ideas

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Is there anything that could be added or changed to improve future events or any other comments?

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Farm Tour - Feed lot, Mallee Seeps. Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 1400 ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 41 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				<input checked="" type="checkbox"/>	
The level of information/training was suitable for me				<input checked="" type="checkbox"/>	
The amount of information/training was suitable for me				<input checked="" type="checkbox"/>	
The <u>materials</u> (e.g. handouts and notes) are useful to me				<input checked="" type="checkbox"/>	
The training/workshop/event was <u>well conducted</u>				<input checked="" type="checkbox"/>	
I <u>learned something</u> from <u>interacting with</u> the other participants				<input checked="" type="checkbox"/>	
I would <u>recommend</u> this training to other people				<input checked="" type="checkbox"/>	
Participation in this training workshop has increased my:					
Awareness of the topic				<input checked="" type="checkbox"/>	
Knowledge of the topic				<input checked="" type="checkbox"/>	
Knowledge to change how I do things				<input checked="" type="checkbox"/>	
Skills in the topic				<input checked="" type="checkbox"/>	
Skills to change how I do things				<input checked="" type="checkbox"/>	
Capacity to make better decisions				<input checked="" type="checkbox"/>	
Commitment to change my management and/or adopt new practices				<input checked="" type="checkbox"/>	
How many Hectares or Acres will you adopt the practices on?	<u>TBA</u> Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Malke Bus Tour Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 14000 ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 54 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me	✓				
The level of information/training was suitable for me	✓				
The amount of information/training was suitable for me	✓				
The <u>materials</u> (e.g. handouts and notes) are useful to me	✓				
The training/workshop/event was <u>well conducted</u>	✓				
I <u>learned</u> something from <u>interacting</u> with the other participants	✓				
I would <u>recommend</u> this training to other people	✓				
Participation in this training workshop has increased my:					
Awareness of the topic	✓				
Knowledge of the topic	✓				
Knowledge to change how I do things	✓				
Skills in the topic	✓				
Skills to change how I do things	✓				
Capacity to make better decisions	✓				
Commitment to change my management and/or adopt new practices	✓				
How many Hectares or Acres will you adopt the practices on?	<u>200</u> Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: Tim Freak Phone: 0407972470

Email: tim@booderoo.com.au



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

Learning more about feedlotting lambs
How to control salty areas

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

controlling salinity

Is there anything that could be added or changed to improve future events or any other comments?

Great day, Thanks

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Farm Tour Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 4500 acres

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 38 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was <u>well conducted</u>				✓	
I <u>learned</u> something from <u>interacting</u> with the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices				✓	
How many Hectares or Acres will you adopt the practices on?	1/2 Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

- Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Participant evaluation form - agricultural event

Please take a few minutes to fill in **both pages** of this questionnaire. Your input will help us understand the usefulness of this event and how we might improve future events of this type.

Event name: Mallee Bus Tour Your postcode: 5261

Please tick if you are:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Primary Producer | <input type="checkbox"/> Researcher | <input type="checkbox"/> Project Officer |
| <input type="checkbox"/> Land Manager | <input type="checkbox"/> Agronomist | <input type="checkbox"/> nrm Professional |
| <input type="checkbox"/> Farm Worker | <input type="checkbox"/> Agricultural Advisor | <input type="checkbox"/> Government Employee |
| | <input type="checkbox"/> Agricultural sales | <input type="checkbox"/> Other: |

What is the size of the property you manage? 500ha

Please indicate:

- 1) What gender do you identify as? Male Female _____
- 2) With which ethnic group do you identify?
 Non-Indigenous Australian Indigenous Australian or Torres Strait Islander Other _____
- 3) Age: 44 years

Please mark the response which best represents your agreement with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The mix of presentation and participation/exercises was right for me				✓	
The level of information/training was suitable for me				✓	
The amount of information/training was suitable for me				✓	
The <u>materials</u> (e.g. handouts and notes) are useful to me				✓	
The training/workshop/event was <u>well conducted</u>				✓	
I <u>learned</u> something from <u>interacting</u> with the other participants				✓	
I would <u>recommend</u> this training to other people				✓	
Participation in this training workshop has increased my:					
Awareness of the topic				✓	
Knowledge of the topic				✓	
Knowledge to change how I do things				✓	
Skills in the topic				✓	
Skills to change how I do things				✓	
Capacity to make better decisions				✓	
Commitment to change my management and/or adopt new practices				✓	
How many Hectares or Acres will you adopt the practices on?	500 Ha or Acres				

Would you be willing to be contacted to participate in follow up surveys on how you have been able to apply information from this event on your property and the benefits that have occurred?

Yes No If yes please provide name and contact details below

Name: _____ Phone: _____

Email: _____



Please provide written responses to the following questions about the training/workshop

What is the most useful thing you gained or learned from attending this workshop?

more knowledge on Feeding

What future topics for field days, workshops or training events would be beneficial to you and your farm business?

Is there anything that could be added or changed to improve future events or any other comments?

3

Thank you for taking the time to complete this survey. Your input will help us understand the usefulness of this event to you and how we might improve future events of this type.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the Australian Government's National Landcare Program and the Landscape levies.



Appendix 3—Coomandook Ag Update March 2021 survey data

Role	Area	Postcode	Crops/Pastures							Perennial vegetation			Impacted b	Extent	Actions to mitigate	Early
			Cereal	Canola	Lupins	Beans	Hay	Lucerne	Pasture	>10%	10-50%	>50%				
Producer	2500	5261	y	y			y	y			y		Yes	1	Deep ripping	
Agronomist			y	y			y						Yes	1	Mixed species/organic matter	y
Govt extension		5265	y					y	y		y		No	n/a		
Producer	400	5301	y	y				y	y			y	marginally	1	lucerne/cover crops	
Producer	1000	cookes	y		y			y			y		Yes	3	plozza, increasing water use	y
Producer	2000	cookes	y	y	y			y			y		Yes	2.5	lucerne	
consultant		5275														
Producer	2000	moorlands	y					y		y		y	yes	2	reveg,fencing	y
contractor		5261	y		y	y	y				y		yes	1		y
interested party																
consultant																y
Producer	8300	5261	y	y	y	y	y	y	y		y		y	4	salt tolerant pastures/lucerne	y
Producer	2500		y	y	y	y	y			y			y	3	salt tolerant species	

Adoption		Knowledge (1-5)		Usefulness			Expectations				Will information bring positive outcomes						
Mid	Late/Not	Pre	Post	Not	Partial	High	V.exceede	Exceeded	Met	Partially n	Did not m	Str	Disagr	disagree	Neutral	agree	str agree
y		2	3			y		y								y	
		3	3.5			y	y										y
y		3	5			y		y								y	
y		3	4			y			y								
		2	4			y	y										y
y		5	5			y		y								y	
		5	5			y		y								y	
		3	4			y		y								y	
						y	y									y	
		4	5					y									y
		4	5			y	y									y	
y		3	4			y		y									y

Adoption/change likely			Is data useful	Would you recommend	Will it improve producer communication						
y			?	?	Unsure	Farmer in his late 60's; not overly tech savvy					
y			Very	Yes	Agree						
		y	very	Yes	Agree						
y			highly	Yes	Str agree						
				maybe	Agree						
		y	highly	Yes	Str agree						
y				Yes	Agree						
		y	highly	Yes	Agree	Excellent investment generating great data for the region					
		y	highly	Yes	Agree						
		y	highly	Yes	Agree						
			very	Yes	Str agree						
		y	highly	Yes	Str agree	Would love to see more automated monitoring					
y			Very	Yes	neutral						
	y		Very	Yes	Agree						

COOMANDOOK SALT LAND REDEMPTION PROJECT - ACTIVITIES REPORT 2020

AN INITIATIVE OF THE COOMANDOOK AG BUREAU AND THE COORONG TATIARA LAP

PROJECT SUMMARY

The Coomandook Saltland Redemption project was initiated by the Coomandook Ag Bureau to investigate the application of new developments in the productive use of saline land across Coomandook / Cooke Plains area. This included testing the suitability of new salt tolerant legume species Messina and complimentary salt tolerant pastures in broadacre farming systems. After consultation, and

as a result of the dryland salinity information sessions held across the Coorong District Council area in 2016, it was decided to establish an additional site in the Meningie East area.

Key issues that farmers wanted to investigate were:

1. Does Messina grow in the environment?
Can it be productive either as a stand alone species or as part of a pasture mix?

PROJECT ACTIVITIES

To address these issues, three farmer demonstration sites were established during the 2017 season at Cooke Plains, Coomandook and Meningie East. These sites were sown down with Messina – either in mixes with other potential salt tolerant pastures or as a stand-alone species to assess the potential for Messina across not only saline areas, but in the gradational areas surrounding saline areas. All sites were sprayed out prior to sowing and then sown with inoculated Messina plus or minus other companion species (Table 1). The project was also fortunate to have access to an additional site at Cooke Plains being managed by Elders. This site was utilised in extension activities and also for comparative feed testing of different saltland varieties.]

An existing site sown in 2016 was identified at Cooke Plains and included in the monitoring process to assess potential for regeneration of the Neptune Messina.

A replicated trial site was also established at the Cooke Plains site (in collaboration with SARDI) to look at the seeing rates for Messina in a low rainfall environment, and the impact of fungicide seed treatments (Apron SD™) on establishment and nodulation of Messina.

PROJECT DETAILS

Funding Body

This project is supported by the South Australian Murray-Darling Basin Natural Resources Management Board, the South East Natural Resources Management Board, The Coorong Tatiara Local Action Plan and the Coomandook Agricultural Bureau through funding from the NRM Levies and the Australian Government's National Landcare Program.

Project Duration

2017-2020

Site Locations

- Cooke Plains (K & R Roberts)
- Coomandook (Hansen Farms)
- Coomandook (Simmons)
- Meningie East (S. Williss)



The results in 2017 were highly variable with the limitations of Messina as a curative plant on salt scalds being observed.

Table 1. Site Activities, 2018

Site Location	Species sown (2017)
Cooke Plains	Messina @ 10kg/ha + Lucerne (SARDI Grazer) @ 3Kg/ha
	Messina @ 10kg/ha + Puccinellia @ 4Kg/ha
	Messina @ 10Kg/ha + Scimitar medic @ 3kg/ha + Phalaris @ 3kg/ha
	Messina @ 10Kg/ha + Persian clover @ 3kg/ha + Fescue @ 5kg/ha
Cooke Plains	Messina Seeding Rate Trial (sown by SARDI)
Coomandook	Messina @ 10Kg/ha
Meningie East	Messina @ 10kg/ha + Puccinellia @ 5Kg/ha

In 2018, the same sites were utilized, with areas either being resown or being left to see what levels of plants regenerated (Table 2).

There was also a shift in focus by the steering committee from looking solely at the remediation of saline scald areas to try and pro-actively identify areas that were potential areas where salt may occur. Unfortunately, this was 12 months too late, with large areas being lost to salt scalds over the summer period and further areas of dryland salinity observed in crops in 2018.

Table 2. Site Activities, 2018

Site Location	2018 Activities
Cooke Plains	Mulching to provide a micro-climate for Messina establishment
	Various pasture mixes
	Use of various liquid fertilisers to try and increase establishment levels
Coomandook Site 1 (Hansen Farms)	Regeneration observed and monitored from 2017; some areas resown
Coomandook Site 2 (Simmons)	Regeneration observed and monitored (from initial planting in 2016)
Meningie East	Regeneration of Messina and Puccinellia observed

In 2019, the initial demonstration areas were maintained, with the site at Cooke Plains being re-sown to pasture. Additional pasture paddocks were also sown and additional farmers supported in trying to remediate their soils across the region. The areas where remediation techniques were being demonstrated was also expanded onto other properties. Demonstrating different management techniques were implemented at two sites with some deep ripping being conducted and then pastures sown across the area.

Table 3. Site Activities, 2019

Site Location	2019 Activities
Cooke Plains Site 1 (Roberts)	Monitoring impacts of mulching Various pasture mixes Assessment of impacts of groundcover
Cooke Plains Site 2 (Kleinig)	Deep ripping vs no ripping in areas affected by salt since 2013. Oversown with a mixture of crop and pasture species
Coomandook Site 1 (Hansen Farms)	Regeneration observed and monitored from initial seeding. Additional saline areas on the farm sown to a mix of species. Assessment of impacts of groundcover
Coomandook Site 2 (Simmons)	Regeneration observed and monitored (from initial planting in 2016) Assessment of impacts of groundcover
Coomandook Site 3 (Patterson)	Remediation of saline areas by leaving what is there and oversowing pasture species.
Meningie East Site 1 (Williss)	Regeneration of Messina and Puccinellia observed and monitored
Meningie Site 2 (Cartledge)	Deep ripping of saline soil with the addition of various soil improvement

SUMMARY OF RESULTS / OBSERVATIONS

2017

Cooke Plains (Site 1)

Broadacre areas across site were sown between 24th April and 1st May 2017.

The Messina small plot trials (seeding rate trial) sown approximately 25th May 2017.

Soil test results showed an EC(1:5) of 6.3dS/m on the low ground and 2.6dS/m on the high ground.

The Cooke Plains site was monitored at approximately 28 days and 60 days after sowing. Initial assessments (28 days) showed very slow and patchy germination, and so no formal assessments were made. At 60 days the site was still very patchy with good establishment on the 'rising' ground, or those areas that were slightly elevated but almost no establishment on the flats (Figs 1-2).

There was some concern that hard-setting of the soil and the sodicity may



Fig 1. Patchy establishment at Cooke Plains site (28-June 2017)



Fig2. Poor/no germination on flats

have affected initial germination, however this has been ruled out by Brian Hughes, Rural Solutions SA after interpretation of the initial soil test results who believes that salinity at the site is the dominant factor.

This issue was raised by K.Roberts (landholder) and Landmark Cookes Plains with Seednet who undertook further investigation; particularly around soil sampling areas where Messina had established vs. those where it hadn't. A delegation from Seednet came to the site in August to learn more about the activities that were being undertaken and also to discuss the poor germination across parts of the site (Fig 3). It was hypothesised that the lack of rainfall prior to sowing may have resulted in salinity levels being too high across the site and that delaying the time of sowing until after a rainfall event may be beneficial for establishment (although detrimental to potential production levels).



Fig3. Seednet representatives visiting the site

On the 4th August 2017, areas where germination had initially failed or been poor were resown to see if a delay in sowing (and potential decline in soil salinity levels through a flushing effect) could result in establishment across these highly saline areas. Limited success occurred with very little follow-up rainfall after re-seeding.

Coomandook (Site 1)

The site was sown with straight Messina on approximately 28th May 2017.

The site was monitored approximately 28 days after sowing. There was what appeared to be a fairly even germination of Messina across the site (Fig 4), with initial establishment levels varying from 19plants/m² on the saline flats to 42plants/m² on the rising gradational areas within the site. Fig 5 shows the plant populations across the site.



Fig 4. Initial germination at Coomandook site photo taken in area where germination averaged 25plants/m²



Fig 5. Plant populations across site at Coomandook (28th June 2017)

There were at least 3 germinations of Messina observed at the site from July through to August (Fig 6). These germinations appeared to occur after large rainfall events. The initial germination had nodulated well, and the nodulation was effective (pink, fleshy nodes) – Fig 7.

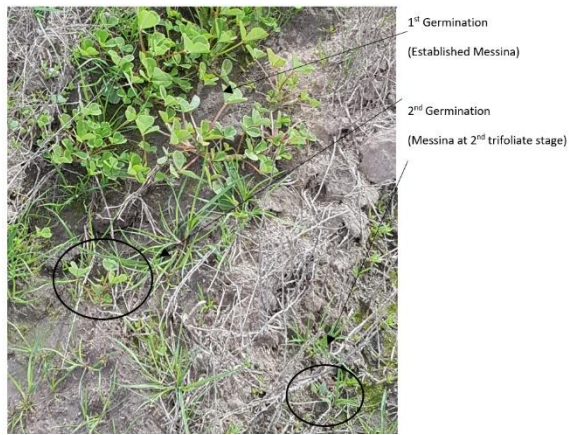


Fig 6. Staggered germination at Coomandook site



Fig 7. Messina Nodulation

Meningie East

This site was sown on 23rd July 2017 with a mix of Messina @ 10Kg/ha and Puccinellia @Kg/ha with the addition of a very light barley cover crop. Soil ECe levels in the topsoil (0-15cm) were 5dS/m on the mid-slopes.

The area contained some wet scald areas, but had predominantly had tall wheat grass established over the area, and the aim was to establish a pasture mix that was more productive and easier to manage. Figure 8 shows the site in the Middle of September.

Initial plant establishment of the Messina (6 weeks post-sowing) was 37 plants/m² across the rising, marginal areas of the site.



Figure 8. Meningie East site 14th September 2017

The Messina had established initially in areas that then became inundated with water, and it appears to be tolerating temporary inundation at this site (Fig 9 – 10).



Figure 9. Messina growing while inundated



Figure 10. Messina inundated in water

Additional sites

a. Coomandook (Site 2) Monitoring regenerating Messina (sown in 2016)

At this site, the Messina appeared to regenerate quite well (Fig 11), there was also evidence of good levels of seed set with seed sitting on the surface in late August 2017 (Fig 12).



Figure 11. Messina Regeneration in 2017



Figure 12. Messina seed sitting on the soil surface

b. Cooke Plains site (Elders site)

This site contained various legumes and grass species that were planted around a saline swamp to see how each species performed as it transitioned into saline areas. As part of the project, feed tests were taken comparing Messina feed quality to that of Scimitar Medic, Balansa and Nitro Persian Clover. The feedtest results are shown in Table 2.

Table 4. Feed Test Results from White's site

Test	Messina	Nitro Persian	Balansa
Dry Matter (DM) (%)	12.3	10.9	7.8
Moisture (%)	87.7	89.1	92.2
Crude Protein (% DM)	32.7	26	25.3
Acid Detergent Fibre (% DM)	19.6	18.5	20
Neutral Detergent Fibre (%DM)	25	31	34.3
Digestibility (DMD % of DM)	82.9	80.5	78.1
Digestibility (DOMD) (Calculated % of DM)	77	75	73
Est. Metabolisable Energy (Calculated MJ/kg DM)	12.6	12.2	11.8
Fat (% of dry matter)	4.8	4.5	4.7
Ash (% of dry matter)	13.7	13.5	12.9

2018

Cooke Plains (Site 1)

During the summer of 2018, a tomahawk bale shredder was used (Fig 13) to chop straw up into smaller pieces to spread over the site. This was done based on the results of 2017 where it was observed that where there was organic matter at the site, the germination was slightly better, and the idea of creating a 'micro-climate' was being tested. The straw was then incorporated with a chopper chain (Fig 14 shows the end result in winter).

The site was monitored from April with salinity tests being taken at the same site every 2 months to see if there was a change in soil salinity due to 'flushing' effect. A shift in soil salinity levels over that time wasn't been observed; possibly due to low rainfall levels (approximately 70% long-term average April-Aug rainfall has been received, with the largest proportion of it falling in August).

After the rainfall event in August (100mm), there was an increase in germination observed across the site and the Messina that germinated did carry through and set some seed. The Puccinellia that was included in the seed mix in 2018 appeared to have a very good level of germination.



Fig 13. Tomohawk bale shredder (March 2018)



Fig14. Straw on the surface at the site (August 2018)

Even though germination was limited at this site, the presence of straw and the organic matter present assisted in reducing wind erosion over the late autumn/winter period, and the following summer.

Coomandook (Site 1)

Plant establishment counts were taken in late July across the site. In 2017, there was a really distinct difference in areas of establishment based on location in the landscape. This was also observed with the site regeneration in 2018. The regeneration figures at varying levels of soil salinity (measured at time of plant samples) are shown in Table 5. The establishment at the site is shown in Figure 3-4.

Table 5. Plant numbers and soil salinity at Coomandook.

	Messina Regeneration plants/m2	Salinity EC(s.e.)
High Ground	380	5.27
Low Ground	150	10.88
Resown area	-	22.44



Fig 15. Regeneration on high ground



Fig 16. Regeneration on lower ground

Coomandook (Site2)

Some Messina was sown in 2016 and in 2017 good levels of regeneration were observed. A decision was then made to monitor this site in 2018. The areas adjacent to the saline levels were sown down to canola in 2018 and there were large areas that had previously grown crops, that became unproductive in 2018 (Figure 17). Soil samples were taken to depth (where possible) in August 2018 on the hill where there was canola established, in the mid-slope where canola had been planted but had not established and on the flats where the Messina had been planted. The soil cores are shown in Figure 18 and the results from the soil salinity tests are shown in Table 6



Fig 17. Coomandook Site 2 with poor/no canola establishment, 2018

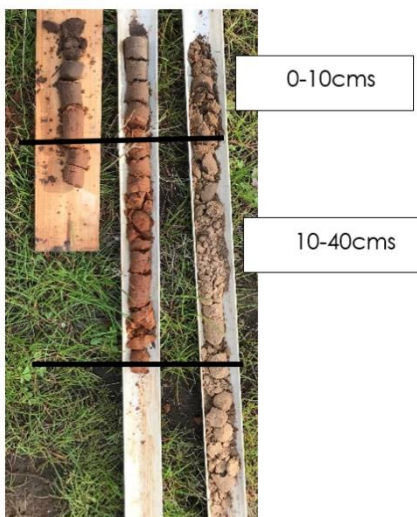


Fig 18. Coomandook Site 2 soil cores

Table 6. Soil test results – Coomandook Site 2, 2018

Location	Ground cover/Crop	Soil Salinity (EC s.e)		Soil Texture
		0-10cm	10-40cm	
Hill	Canola established	2.89	2.55	Sand
Mid-slope	Poor / no canola established	17.4	24.7	Loam
Flat	Saline area - Messina in patches	30.4		Loam

Other observations

Initial germination on established sites appeared to be significantly better at sites where sheep had grazed as opposed to a site where the paddock had only been grazed lightly with cattle. This is shown in Figure 19 (a) grazed with sheep and (b) grazed with cattle with the photo taken on 31-May 2018.



Fig 19a Initial germination grazed with sheep



Fig 19b. Initial germination, grazed with cattle

2019

Cooke Plains (Site 1)

The site was sown in July after the remainder of the cropping program had been sown. Throughout the start of the season, large rainfall events had occurred, and the cumulative average was 30mm higher than in 2018. These large rainfall events (multiple events greater than 10mm over consecutive days) are thought to have helped the salt concentration in the surface decline slightly providing a more favourable environment for pasture establishment; providing that 'flushing effect' that hadn't been received in 2017-2018. The pasture establishment at the site has exceeded expectations, with the majority of the salt scald being covered (Fig.20).

It is thought that all of prior activities (application of organic matter and previous seedbank developed) in conjunction with the rainfall events at the start of the season have contributed towards providing a favourable micro-climate in which the pasture has been able to germinate.



Fig 20. Establishment at Cooke Plains (Roberts)

Cooke Plains (Site 2)

A deep ripper was utilized in strips at the site to see if cracking open the soil or reducing a hard pan layer had an impact on the establishment of pasture species.

On 11th June 2019, a mixture of wheat (100kg/ha), cobra balansa (3kg/ha), puccinellia (1kg/ha), canola (2.5kg/ha) and ryegrass (2kg/ha) was sown across the site.

The ripped area was quite soft, and it is thought that some of the smaller seeds were sown a bit deep, as there appears to be a greater number of wheat plants and less of some of the species. The health of those plants does however appear to be a lot greater (Fig 21).

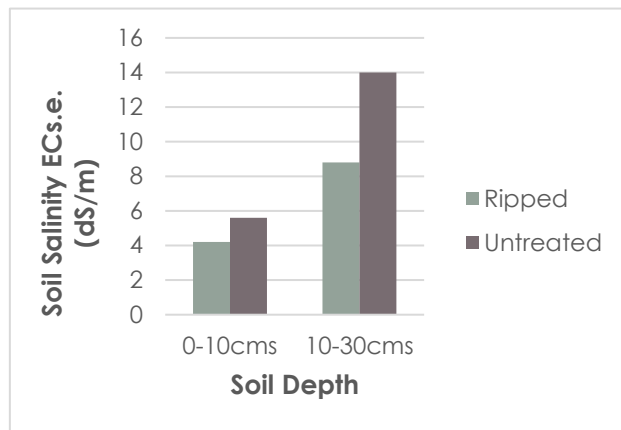
This site was also soil sampled (16th September 2019) to determine if there was any difference in the salinity levels of the soil at the surface. The results showed a decrease in soil salinity levels in the area that was ripped, both at the surface and in the 10-30cm layer (Fig 22).

Ripping appeared to be quite effective in reducing the salt levels both at the surface (0-10cms) and sub-surface (10-30cms). This success of this practice will however depend on where the water table is located and if the water has somewhere to go. Further work is required to determine what situations ripping would be suitable in.

Fig 21. Ripped (LHS) vs untreated (RHS)



Fig 22. Soil test results (September 2019)



Meningie East

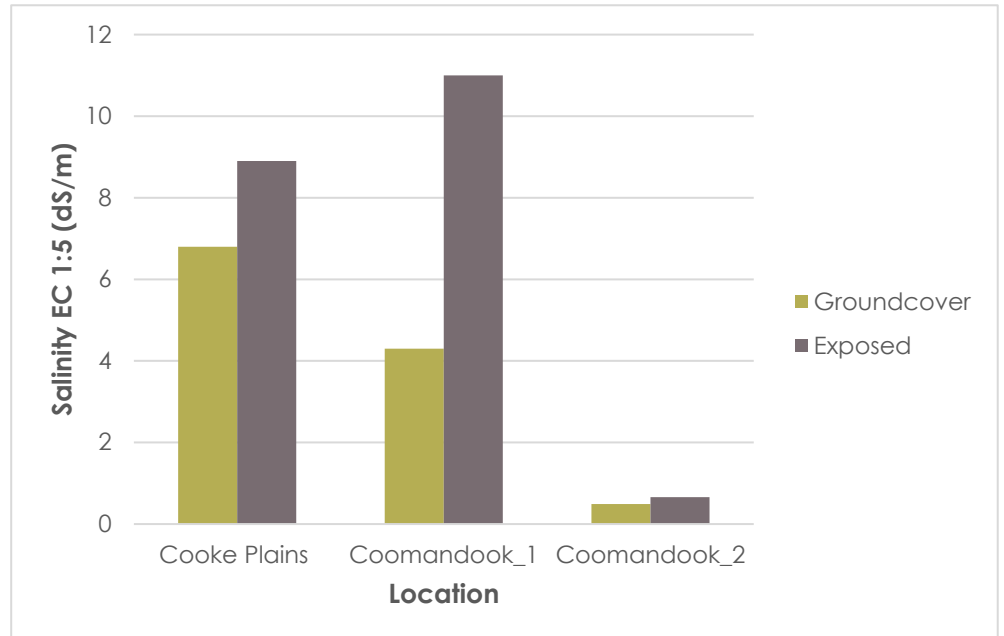
The Saltland pasture sown in 2017 continues to regenerate and persist (Fig 23). The puccinellia has become the dominant species with some Messina also present in amongst the puccinellia sward. In a paddock where there is also Lucerne veldt pasture on the rises, it has been continually observed that the livestock will preferentially graze the Lucerne and veldt as opposed to the saltland mix, however it is providing groundcover, reducing wind erosion and the area subject to scalding.



Fig 23. Saltland pasture mix, Meningie East, 2019

Assessment of impacts of groundcover (multiple sites)

Over the 2019-20 summer period an assessment of the impact of groundcover on capillary rise was conducted. This involved sampling of areas of paddocks where groundcover was compared to no groundcover. Pasture cages were put out in November to make sure that grazing did not remove the cover. The results (Fig 24) showed that there are definitely benefits of having groundcover in reducing the soil salinity levels.



KEY FINDINGS

Throughout the life of the project, various saltland remediation techniques were demonstrated to improve farmer understanding of their effectiveness in remediating salt scalds. Varying success was achieved depending on the technique being demonstrated and the seasonal conditions being experienced.

Key Lessons learned;

- **Maintain groundcover**
- **Wait until the soil has been 'flushed' before sowing (seasonal differences will apply)**
- **Use a mixture of salt tolerant species**
- **Know soil salinity levels**

There needs to be a continued focus on the prevention of saline areas (as opposed to cure). Further work needs to be done around suitable land use, water use of different crops, pastures and other perennial vegetation and a focus on reducing recharge to groundwater needs to occur across the landscape.

This project is supported by the South Australian Murray-Darling Basin Natural Resources Management Board, the South East Natural Resources Management Board, The Coorong Tatiara Local Action Plan and the Coomandook Agricultural Bureau through funding from the NRM Levies and the Australian Government's National Landcare Program.

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- Brad Kleinig
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- Cartledge Family, Menalbyn

Agribusiness Sponsors

- Landmark
- Platinum Ag
- Elders
- Heritage Seeds
- Seednet





Coorong Tatiara

Sustainability, Agriculture & the Environment



Fodder Beet and Kikuyu on saline soil

This fact sheet covers the steps undertaken and results obtained from seeding Fodder Beet and Kikuyu on saline soils at Cooke Plains over the 2019 –2020 season

Site conditions

The Fodder Beet and Kikuyu demonstration site is located on Brad Kleinig's property, Gypsum Road Cooke Plains. The site is affected by dryland salinity, with sandy to heavy loam soils, with a coverage of volunteer samphire and annual grasses prior to seeding.



The soil ECe was in the range of 4-14 dS/m with a pH of 7.89. It is estimated that the saline unconfined aquifer is around 3 metres below the soil surface.

Left: Site pre seeding
Photo: Kleinig

Fodder Beet

Two varieties of Fodder Beet were sown on this site; Cropmark varieties Geronimo and Summo. Local producers were interested in trialing fodder beet after hearing about successful demonstrations occurring in the mid and lower South East. Several articles appeared in the Stock Journal over 2018 and 2019 about seeding fodder beet. Salt was being added to these sites as a treatment to amend site conditions to enhance establishment.

Geronimo originates from France. It has a yellow-orange tankard shaped bulb that sits approximately 45% above the ground. The crop can be grazed in situ, or be lifted and fed whole or chopped. It is suitable for grazing by sheep and cattle.

Stock journal

Fodder beet may prove saline solution

CATHERINE MILLER

9 Jun 2019, 9:30 a.m. Beef



LEFT: Stock Journal on line Fodder Beet article

RIGHT: Geronimo yellow orange tankard shaped bulb
Photo: Cropmark Seeds Ltd



Geronimo Fodder Beet Agronomic Traits

Sowing season	Spring
Sowing rate (seeds/hectare)	80,000-100,000
Maturity (days to grazing)	200+
Bulb % above ground	+/- 45%
Dry Matter %	15 - 17%
Disease resistance	Very good

Under optimum conditions **Summo** is a high yielding dual purpose grazing and lifting fodder beet. It has large red conical shaped bulbs which sit approximately 40% out of the ground. Summo fodder beets are suitable for grazing or lifting and can be fed whole or chopped.

Summo Agronomic Traits

Sowing season	Spring
Sowing rate (seeds / hectare)	80,000-100,000
Maturity (days to grazing)	200+
Bulb % above ground	+/- 40%
Dry Matter %	18 - 20%
Disease resistance	Very good

RIGHT: Summo large red conical shaped bulb

Photo: Cropmark Seeds Ltd



Seeding technique

The site was deep ripped with a rabbit ripper and seeded with Geronimo and Summo Fodder Beet with a shearer trash culti drill with press wheels on the 19th of October 2019 following 20mm of rain.

The recommended seeding rate of 100,000 seeds per hectare was used. The site was sprayed with Talstar the day after seeding. The fertiliser application was 350 kg/ha of a DAP / urea blend.

The germination rate was fair, with more of the Geronimo variety emerging than the Summo. Plants persisted well until the very hot and dry conditions in early summer. Some plants died and others lost their older leaves. The surviving plants persisted in spite of the lack of rain over summer. Since rainfall returned in April and May 2020 the fodder beet plants have recovered well. The plants performed well on the moderately saline soils, but not as well on the extremely saline areas.

The plants were observed during frosty conditions in early June and appeared unaffected.

What could be done to improve the result next time?

Landholder Brad Kleinig said, 'I think the main thing required is a precision seeder to get a more even germination of fodder beet plants. Also maybe a follow up insecticide spray as some pest damage was visible after Christmas. I would be interested in doing another trial this year as I see the potential for growing fodder beet in our area.'

Kikuyu

Kikuyu is a prostrate growing perennial grass. Most growth occurs in spring, summer and autumn. It is suited to fertile, well-drained soils. In favourable conditions the runners spread rapidly, making kikuyu a very suitable species for erosion control on sandy soils.

Kikuyu responds well to nitrogen fertiliser.

Kikuyu Grass Agronomic Traits

Sowing season	Spring to early autumn
Sowing rate (seeds / hectare)	1 - 4 kg / hectare
Variety	Whittet
Nutrient deficiencies	Nitrogen, phosphorus, potassium, sulphur
Insect Pests	Army worms, sod web worms, african black beetle
Animal health advice	Occasionally nephrosis or hypocalcaemia in ruminants, due to oxalates. Rare nitrate poisoning in cattle after rapid growth after dry conditions. Not suitable for horses.

RIGHT: Kikuyu Grass

Photo: DPI NSW



LEFT AND BELOW: The growth stages of Fodder Beet over the 2019 / 2020 season on the Cooke Plains site

Photos: Kleinig and Strugnell

LEFT: A Geronimo Fodder Beet with the beet pushing out of the ground

Photos: Kleinig and Strugnell



LEFT: Fodder Beet continuing to grow well during frosty conditions in early June 2020

Photo: Brad Kleinig

Seeding technique

The Kikuyu Grass was seeded on the 19th October 2019 following a 20mm rainfall event at 2 kg per hectare with approximately 50 kg/ha of DAP / urea blend. The Kikuyu had a very strong density at germination but the hot, dry spell in early summer hit it the seedlings hard with around 50% plants dying, and 100% on the extremely saline ground). Like the Fodder Beet, the remaining plants held on well despite the dry summer and have shown good activity since the break of the season in April / May 2020. Landholder Brad Kleinig said, 'Obviously the Kikuyu will go mildly dormant as the cool weather hits but I'm looking forward to seeing how it goes in spring once the soil temperatures rise.'

What could be done to improve the result next time? 'Probably spraying out the Potato Weed next time will leave more moisture for struggling plants. Otherwise I was happy with the result. With a wetter summer I think it would go really well. Like the fodder beet I am interested in sowing Kikuyu again.'



ABOVE: Seedling Kikuyu Grass 2019 Photos: Brad Kleinig



LEFT: Kikuyu Grass with mixed grasses June 2020



Coorong Tatiara Local Action Plan
 P: 1300 785277
 E: tstrugnell@coorong.sa.gov.au
 W: <https://www.coorong.sa.gov.au/council-services/coorong-tatiara-local-action-plan/soil-health-and-dryland-salinity/saltland-pastures>

Useful Links

Saltland Agronomy

Information on saltland pastures and the saltland pasture redemption project

<https://www.coorong.sa.gov.au/council-services/coorong-tatiara-local-action-plan/soil-health-and-dryland-salinity>

Fodder Beet

Follow the Forage Products tab to Fodder Beets

<https://www.cropmarkseeds.com>

Kikuyu Grass

<https://www.dpi.nsw.gov.au/agriculture/pastures-and-rangelands/species-varieties/pf/factsheets/kikuyu>



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