

GROWER GROUP FINAL REPORT 2016

Project Type

Applicants must read the *SAGIT Group Allication Guidelines 2016* prior to completing this form. These guidelines can be downloaded from <u>www.sagit.com.au</u>

Final reports must be emailed to <u>admin@sagit.com.au</u> as a Microsoft Word document in the format shown *within 2 months* after the completion of the Project Term.

| PROJECT CODE | : | EP216G |
|--------------|---|--------|
| | | |

| EVENT TITLE | (10 words maximum) |
|--|--------------------|
| Soils-Getting the most out of your sands | |

EVENT DURATION

These dates **must** be the same as those stated in the Funding Agreement

| Event Start date | 27 July 2016 | | |
|-----------------------|--------------|--|--|
| Event End date | 27 July 2016 | | |
| SAGIT Funding Request | 20016/17 | | |

EVENT SUPERVISOR DETAILS

The project supervisor is the person responsible for the overall project

| Title: | First Name: | Surname: | |
|--------|-------------|----------|--|
| Mr | Simon | Guerin | |

ADMINISTRATION CONTACT DETAILS

The Administration Contact is the person responsible for all administrative matters relating to the project

| Title: | First N | ame: | | Surnar | me: | | |
|---------------------------|---------|------------|---------|--------|--------|--|--|
| Mrs | Dot | | | Brace | | | |
| Organisation: | | | | | | | |
| EPARF | EPARF | | | | | | |
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| PO Box 31 MINNIPA SA 5654 | | | | | | | |
| Telepho | ne: | Facsimile: | Mobile: | | Email: | | |
| | | | | | | | |

EVENT REPORT

Provide clear description of the following:

Executive Summary (200 words maximum)

A few paragraphs covering what was achieved, written in a manner that is easily understood and relevant to SA growers. Report on the attendance at the event, relevant photos could also be attached. A number of key dot points should be included which can be used in SAGIT communication programs

The Sandy Soils workshop held at Minnipa Agricultural Centre attracted over 140 attendees and involved seven guest speakers who delivered an overview of sandy soils; research results and outcomes; and take home messages on practical strategies to better address specific sandy soil challenges.

Characteristics of sandy soils addressed included low inherent fertility, poor moisture holding capacity, water repellence and soils prone to wind erosion, which makes up over 50% of the area cleared for agriculture on Eyre Peninsula.

Keynote speaker, Dr Stephen Davies spoke about practices used on sandy soils in WA to overcome constraints and involved the audience to identify any current practices used, resulting in the following responses:

• Delving, clay spreading, off-set disc plough (deep working), deep ripping (50-70cm), standard ripping (30-40cm), rotary spading, soil inversion (mouldboard, square plough), deep ripping with topsoil slotting

Stephen also gave a second presentation on managing water repellent sands which was extremely topical for the audience. 94% of growers indicated having water repellent sands. The message on preferred strategies to improve establishment and grain yield particularly for large areas of mild to moderate water repellent soil:

- Mitigation winged boots with paired rows are one of the most reliable options
- Progressive amelioration
- Controlled traffic

Soil wetting agents are less reliable but can be very effective with dry seeding. New wetting agents are currently being developed.

Research findings on Mallee sands showed improved agronomy has allowed productivity from sands to get closer to current potential but there is opportunity on many sands to raise the soil potential even further through amelioration treatments. The case for variable rate soil specific N to enable better nutrition management and improve production on sands is undeniable.

The New Horizons project was aimed at confirming crop productivity can be substantially improved when soil chemical, physical and biological constraints in sandy soils are addressed. Trial results are showing potential for improved yields with soil modification activities. Crop productivity was greatly improved by incorporating organic matter deep into the soil (>30cm) with some cases crop yields boosted further with incorporation of clay and/or fertilizer to depth.

An alternative session on broad acre spading trials in the Mallee with addition of chicken manure resulted in double yields in non-wetting sands with yield benefits from a combination of improved nutrition, moisture holding and breaking soil compaction. Results from spading header rows instead of burning reduced ryegrass numbers around 80% and spading pig manure into sand hills is being trialed in the southern Mallee.

Farmer experiences on inversion ploughing, spading and delving were well received by the audience. Tips included 'It's a ruthless process, so do it once and do it right!' and 'If you're going to spade after spreading clay, keep the clay rates up'.

Overall Performance

A concise statement indicating the extent to which the objectives were achieved, a list of personnel who participated in the Event including co-operators, and any difficulties encountered and the reasons for these difficulties.

Guest speakers participating in the event were:

Dr Stephen Davies (DAFWA): *Amelioration of constrained sandplain soils in WA and Improving furrow sowing and developing management strategies for water repellent sands*

Dr Rick Llewellyn (CSIRO): Seven lessons learnt from seven years of research on Mallee sands

Chris McDonough (Insight Extension for Ag): *Huge yield benefits from Spading Trials in the SA Mallee*

Brett Masters (Rural Solutions SA): Sandy soils - defining the issue

David Davenport (Rural Solutions SA): New Horizons trial results - what do we do now?

Local Eyre Peninsula farmers, Ben Pope (Warramboo): *Inversion ploughing* and Hayden Whitwell (Kimba): *Spading*.

EPARF Chairperson, Simon Guerin opened the day and Andy Bates, EPARF Special Skills and Experience Board member facilitated a lively panel session with all speakers participating at the end of the day. The quality of questions raised indicated the topic was applicable, relevant and current.

Throughout the event, feedback was sought from the audience relating to the speaker topic, using Keepad clickers. This feedback ensured the presentation was appropriate and topical for the attending audience.

Naomi Scholz (SARDI, Project manager) concluded the day with evaluation. Over 90% of attendees learnt something new about sandy soils with nearly 70% planning to do something different as a result from the information presented. The workshop met the expectations of the grower participants with a small percent only gaining partial knowledge, which indicates there could be an opportunity to do some follow up extension on this topic.

Application / Communication of Results

A concise statement describing activities undertaken to communicate the results of the event to the grains industry. This should include:

- Main findings of the event in a dot point form suitable for use in communications to farmers;
- Publications and extension articles delivered as part of the project

Note that SAGIT may directly extend information from Final reports to growers. If applicable, attach a list of published material.

Main points and findings:

- Over 140 attended Sandy Soils workshop to learn more about practical strategies to better address specific sandy soil challenges
- Over 50% of the area cleared for agriculture on Eyre Peninsula has sandy soil characteristics
- Mitigation strategies are a viable option to improve establishment and grain yield on sandy soils
- On mild to moderate water repellent soil, winged boots with paired rows have been found to be one of the most reliable mitigation options
- Improved agronomy has allowed productivity from sands to get closer to current potential but there is opportunity on many sands to raise the soil potential even further through amelioration treatments
- Over 90% of attendees gained extra knowledge with a larger percentage planning to do something different as a result from information presented

Communication and extension:

Articles of high quality were received from all speakers and compiled in a publication which was available for all attendees. Members unable to attend the event, have access to the publication on the EPARF website.

Summary and photos on EPARF website.

Two articles with photos published in the Stock Journal.

A brief summary will be included in the EPARF report, 2016 EPFSS.

Individual articles and photos available on request.

POSSIBLE FUTURE EVENTS

Provide possible future plans of your Group arising from the project including potential for further work and partnerships.

As indicated above, knowledge gaps exist on attitudes and changes to addressing soil constraints.

Further extension of research trial work and farmer experiences at events like this would be beneficial to continue improved management on soil productivity, crop establishment and grain yield benefits on sands.



Speakers: Chris McDonough, Ben Pope, Hayden Whitwell, David Davenport, Rick Llewellyn, Brett Masters, Stephen Davies





Group talking with Paula Thompson, Stock Journal journalist: Stephen Davies, Rick Llewellyn, Naomi Scholz, Simon Guerin, Brett Masters, David Davenport



Audience

Stephen Davies presenting



Simon Guerin opening the event

Networking: Group; Matt Dunn, Mariano Cossani, Bryan Smith; Bruce Heddle, Rick Llewellyn









Stock Journal publications:

0 STOCK JOLIBHAL Thursday August 04, 2016 **OUR PEOPLE**



Grain Brokers manager Steve Whillas and Joral Fromm.



COFFEE TIME And a Eydward, Mudarhuckia, and Clint Heln, Mudarhuckia

Huge turnout at research day

A LARGE number of Byrn Peninovia famoes jumped off its spayer and based integrates to the Alinnipa Agat-note with local premery pre-duces; which local premers pre-sent from based on pre-mer and local Wals See phen Davies.

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Minning



INDUSTRY CHAT: SARDI research administ Andrete Wo SARDI vetch breeder Stuart Nagel and GRDD southern panel member Pater Kohlmann.

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EP LADS: John Veerhuis, Cedure, and Ty Kaden, Cowell, came along to learn more about sandy soils.

Thursday August 18, 2016 STOCK JOURNAL 17

DIGGING DEEP: Soils researcher Stephen Davies, SARDI's Naomi Scholz, CSIRO's Rick Llewellyn, Port Kenny farmer Simon Guerin, PIRSA's Brett Masters and PIRSA/Bural Solutions SA's David Davenoort at the Minnion field day.

EP field day tackles sandy soil problem

GETTING the most out of sandy soils was the focus of the tre than, split applica-tors. Legume breaks could sup-field day held at Minn-pla recently. Anong the guest speakers was CSIRO agricultural sys-tems research group leader leasons learnt from seven years of Mallee Sustainable straining trials.

Twens of Mallee Sustainability of the second second



FARM ISSUE: Sandy soils can perform well, but also have a number of issues.

BY PAULA THOMPSON
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AUTHORISATION

Name: Mrs Dot Brace

Position: EPARF

Signature:

Date: 14/09/2016

Submit report via email to <u>admin@sagit.com.au</u> as a Microsoft Word document in the format shown *within 2 months* after the completion of the Project Term.