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## SANTFA MEMBERS NEWSLETTER Summer 2022

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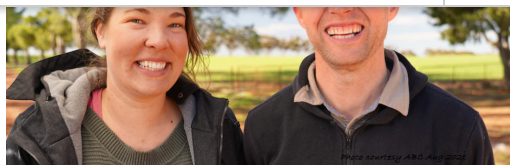
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### **PRESIDENTS REPORT**

*SANTFA welcomes Gareth as incoming President, taking up the helm of this leadership position from*

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*(pictured) manage 2,600 hectares of cropping and grazing land just north of Minnipa.*



A large part of the state seemed to have experienced a good season with crops yielding above expectations despite the dry, late winter and early spring period. The exception being the Murray and Mallee areas that experienced a late break and poor winter rainfall. We hope those farmers can retain what little ground cover they may have and look forward to a kinder season ahead.

Whilst the belated spring rain provided excellent conditions for some crops to finish, it was unfortunately too late in many districts. The silver lining is in the opportunities this moisture now offers. Summer fallow management seems to be particularly challenging in the current environment with high herbicide prices and an early start to the fallow period. Tillage may look to be a cheap alternative but before we succumb to temptation, we must consider the real cost of tillage. Using rough figures, 1cm of topsoil over a hectare with a Soil Organic Carbon (SOC) level of 1.5% contains approximately 170kg of Nitrogen 45kg of Phosphorus and 30kg of Sulphur. That is \$375 of Urea, \$340 DAP and \$60 of SOA with current prices. Tillage which exposes your soil to erosion is therefore expensive even without considering other nutrients and the other benefits of SOC in that soil which could disappear over the fence.

Many growers have planted or are considering planting a summer cover. If this is a new concept to you, ensure you gather good advice, start small and understand that you're using moisture that will no longer be available to the following winter crop or pasture. Summer weeds aren't a cover crop, and a poorly managed cover crop is just summer weeds. There is still much to learn in this space, tread with caution.

At the most recent AGM we welcomed onto the board Luke Crawford, a farmer and engineer from Jamestown. Luke brings to the board knowledge and experience particularly around machinery design and modification and is a forward thinker around farming systems. SANTFA continues to remain in capable hands as Paul Roberts has stepped into the role of Treasurer and Secretary replacing Jamie Phillis. Callum March has stepped aside as President after steering the organisation into calmer waters over the past few years. SANTFA owes a great debt to the effort put in by the Board, in particular Callum and Jamie who went well over and above the call of duty. SANTFA has also recently welcomed Deb Baum back to the organisation to take care of day to day communications and public relations.

focus on the rapidly developing renewable fertiliser space. SANTFA has sought out research experts in other fields to conduct research on our behalf under Greg's careful management. We've recently engaged Peter Treloar and Dr Michael Nash to lead an exciting new project that delves into soil nutrient interactions across 10 field sites spanning the entire state. We are continuing to pursue research objectives atypical to that of mainstream R&D organisations and are always open to membership involvement in steering that investment.

Our mid year conference unfortunately had to be cancelled at the last minute amid a pandemic scare. We quickly assembled a great selection of speakers to present a series of 3 webinars focusing on nutrition. If you didn't join us online back in September, log onto the members portal to view the recordings.

Regretfully the 2022 Conference planned for February the 18<sup>th</sup> in Clare will now be postponed due again to the conundrum that is Covid. We ask all our members to keep us in mind and keep an eye out for the new date of the conference once things have settled. The program for Conference 2022 will again provide a diverse range of speakers and offer an opportunity rekindle networks laid latent during the pandemic.

I hope everyone enjoys a well earned break and some time with family and friends after a busy year and best of luck with the coming season.

*Happy No Tilling*  
*Gareth Scholz*

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## 2022 SANTFA CONFERENCE

It is with deep regret that the SANTFA Conference will be postponed due to the current outbreak of Covid in the regions. An alternative date will be communicated in due course.

[www.santfa.com.au/events](http://www.santfa.com.au/events)

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## FEATURE ARTICLES

to read all feature articles

go to [www.santfa.com.au/membersportal/feature-articles](http://www.santfa.com.au/membersportal/feature-articles)

### The Implications of Green Hydrogen

by Greg Butler | SANTFA



Green Hydrogen is an emerging energy industry set to reduce the worlds Green House Gas emissions. A large fraction of Agriculture's emissions derive from Nitrogen fertiliser production and fuel powered machinery. The fossil fuels currently used can be replaced with low emission Green Hydrogen. Click for the full article



## Sustainable N Use *Helping Integrated Pest Management, Not Hindering: Aphids as Indicators*

*by Dr Michael Nash*

Nitrogen has been proposed as the biggest limiting factor for cereal yield in Australia, once moisture is considered (Meier et.al 2021). Insects are explored as a bio-indicator of Nitrogen availability in Australian cropping systems. Click for the full article =>



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### Commercial Scale Biochar

With biochar production coming on-line in South Australia, SANTFA hosted a site visit to Tantanoola and with support from PIRSA, an independent trial was sown at Keith.

[Image: Biochar production at Roundwood Solutions (Tantanoola) and Field day at the Keith biochar trial site.]



### AquaTill

This year SANTFA has contributed to several AquaTill projects across Australia.

[AquaTill Liquid Coulter video here](#)

[AquaTill Jetacide \(Cotton\) video here](#)

In terms of commercialisation, Precision Seeding Solutions ( [PSSAg.com](http://PSSAg.com) ) are setting up as the Australian agent for AquaTill. We expect initial adoption to occur in northern Australia before filtering down to the south.

### Fire and Flame Retardant

With support from the national Landcare program, SANTFA has continued to evaluate new pre-emptive flame-retardant technologies.



This year's ember attack simulation showed that different products and the application rate can make a difference to how quickly an ember can take hold and spread in crop residue.

Top: Ember attack simulation.

Bottom: Ember attack suppression (L to R) Poor, Moderate & Excellent.



### Seed Priming

This year's seed priming activities focus on seeding primed seed. [Video here](#)

### Plant Species Diversity

SANTFA continues to collaborate on intercropping and cover cropping activities.

3-year soil analysis result will start to emerge in 2022.

[Image: (L) Faba Bean & Vetch at Wirrabara (R) Lentil & Linseed at Paskeville



### Soil Testing

In a new project funded by Landcare, SANTFA is looking forward to working with Michael Nash and Peter Treloar to investigate the relationships between soil carbon and soil nitrogen, and other key nutrients in no-till farming systems at 10 intensive farm sites across the state.

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## Q & A

SANTFA's Mallee Board  
Representative

**Paul Roberts**



**Describe yourself, where you live and farm and who you farm with. Have you worked in any other industries?**

I am part of a family farming business at Karoonda in the Mallee. I farm in partnership with my brother Adrian, with our partners and families, as well as our mother and father who still play an active role in the operation of our business. Our business comprises of 90% cropping and 10 % cattle breeding

construction industry.

### **What drives and challenges you to keep farming?**

Seeing soil health improve and managing to grow crops on less rain in recent years, also a thirst for knowledge, to be better land managers and keep asking questions from a place of curiosity.

### **Describe your soil types and climate, benefits and challenges.**



Sand over clay, to deep sand and rocky out crops. The benefits of sand is that moisture is more available and it can give up water to plants more easily in dry finishes. The challenges of sand is that it has a low nutritional profile leading to poor vigour and non-wetting sand is difficult to establish a crop

### **Give a brief explanation of your rotations, is stock involved and why?**

Approximately 50% cereals (barley and wheat), 50% break crops, canola, lupins, lentils, chickpeas, tight rotations for disease breaks and weed control. Cattle in the operation for diversity, also livestock provide an opportunity to work with kids in the operation.



### **What is your current farming system and where are you trying to get to?**

No till, tyne machine on 15 inch rows to manage trash flow and reduce chemical pre-emergent damage. We would like to investigate using a narrow row disc machine in future and increase our cattle breeding herd.

### **What is a burning question about farming you would like an answer to or research into?**

What are the causes/triggers for germination of seeds in sandy soils and why does some go and some not, but in seed germination tests they all germinate? Does long term use of fungicides play a role in decreased germination and crop vigour on sand?

Easy, great opportunity to meet great people and to increase farming networks, to see and learn from others of what has been tried throughout the state.

**Farming can be stressful at times do you have a favourite spot or place where you like to go to escape and relax?**

Anywhere on the water (sea or river) to get a line wet or water activities with family and friends.

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The logo for AGF seeds features the letters 'AGF' in a large, bold, dark green font. To the right of 'AGF', the word 'seeds' is written in a smaller, dark green font. Above the 's' in 'seeds', there is a stylized graphic of three yellow wheat stalks.

Australian Grain and Forage

The logo for Manutec Agricultural Products features the word 'Manutec' in a large, bold, green font. Below it, the words 'AGRICULTURAL PRODUCTS' are written in a smaller, red, italicized font. The entire logo is set against a yellow background with a green border at the bottom.

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