

registration by Feb 7  
*Early Bird*



**SANTFA**  
CONSERVATION AGRICULTURE IN ACTION



February 24

**Barossa Arts & Convention Centre**

Magnolia Road Tanunda, SA



# PROGRAM

## PRE-CONFERENCE BBQ BUFFET

Thursday February 23, 6.30pm at the Weintal Hotel.

## CONFERENCE

- 8:15–8:45 Registration
- 8:45–8:55 Opening  
GRDC representative
- 8:55–9:10 Welcome  
SANTFA President Sam Venning
- 9:10–10:10 John Heermann ~ Soil health and cover crops in an arid environment
- 10:10–11:10 Ben Beck ~ Building on best practice for soil health and efficiency
- 11:10–11:40 Morning tea
- 11:40–12:40 Rick Bieber ~ Life without 'cides – probing potential and practicalities
- 12:40–1:00 Q & A
- 1:00–2:00 Lunch
- 2:00–2:50 Forums
- A. John Heermann ~ Exploring the detail
- B. Rick Bieber ~ Exploring the detail
- 2:50–3:00 Session changeover
- 3:00–3:50 Grant Sims ~ Soils, beasts and biologicals
- 3:50–4:20 Afternoon tea
- 4:20–4:50 Greg Butler ~ Researching the future
- 4:50–5:00 Close  
SANTFA President Sam Venning

**FOR ALL  
THE LATEST ON  
THE CONFERENCE**



SANTFA – Conservation Agriculture In Action



@SANTNoTill



#SANTFAConference

# WHAT AND HOW – TACKLING SOIL REGENERATION

Four accomplished farmers will headline this year's SANTFA conference.

The four speakers, two from the US and two from the Eastern States of Australia, will discuss their experiences with establishing and managing regenerative agricultural systems and what can be achieved from working with nature to enhance soil health, vitality and productivity.

All four are farming in low-moisture environments and using minimum or zero tillage systems, diverse rotations, cover crops and cattle. The two Australian speakers are also using controlled traffic systems and one aims to avoid all chemical inputs including chemical fertilisers, which he has replaced with a fermented biological product.

**Colorado farmer JOHN HEERMANN** runs a no-till system that includes year-round surface cover in a region that receives an average of just 400mm of moisture a year from a combination of snow and rain; conditions that make it imperative for him to keep his soil covered and make full use of all the moisture he does receive.

John, who has a degree in agricultural economics, says he 'discovered soil health' while looking for ways to reduce costs and increase profitability in the family farming business.

Faced with high input costs, low working capital and a variety of inefficiencies when took on responsibility for the family farm, he switched from a full tillage fallow-based system to no-till and added more crops to his rotation, but kept on coming back to summer fallow.

"Fallow is not found in nature and summer fallow and fallow periods between crops must be eliminated if soil health and water efficiency are to increase."

His search for an alternative to fallow has seen him adopt 'regenerative practices' – a wider, more diverse cropping rotation and cover crops – designed to mimic nature and restore soil health and re-introduce livestock to his farming system.

John, who is keen to help other growers adopt a similar 'regenerative' approach and begin restoring depleted soils, will discuss aspects of his farming system, how and why it has developed as it has, and what he thinks is the way forward.

He will detail how he has integrated cover crops into his farming system in his arid environment, which receives only 400mm of moisture a year, and discuss why he is now growing diverse cover crop forages for cattle on what were cropping paddocks.

John will discuss the benefits, and importance, of keeping the soil covered with 'a buffet of diverse plants and their roots' to protect the soil and feed soil organisms and provide economic data showing that growers harnessing soil biology can grow more, use rainfall more efficiently, spend less and make more profit.

**Wagga Wagga farmer BEN BECK** started farming in 2004, early in the 'millennium drought', and quickly decided that ground cover and sowing time were critical to crop performance.

Today he uses a 9m CTF system and a diverse rotation that allows him to sow crops at different times of the year, opening the way for him to optimise production and use a variety of herbicides at different times. This enables him to hit weed populations at different growth stages, which minimises selection pressure for herbicide resistance in weed populations.

Ben is finding the benefits from pursuing best practice in all aspects of his enterprise are compounding as the system matures and that soil health, initially a secondary 'interest', is rapidly becoming the foundation of the cropping system.

Ben will discuss how his farming system developed, the benefits of his CTF system and his diverse crop rotation and herbicide options and the impact these have had on the health and productivity of his soils.

**South Dakota grower RICK BIEBER** farms in 400mm rainfall country near Trail City, where he combines no-till cropping and a 600-head cow/calf operation on 5,000 acres [2,025ha] of cropland and 5,000 acres [2,025ha] of native rangeland.

Rick is a strong advocate of diverse crop rotations and in addition to mixed-species cover crops grows hard red spring wheat, hard red winter wheat, corn, linseed, peas, sunflowers, chickpeas, buckwheat, millet and lucerne.

He sees soil health and enterprise profitability as keys to successful no-till cropping, and his crops consistently yield well above the district average.

"We judge our management skills by 'pounds of harvestable material per inch of water fallen' and our soil health has allowed that number to keep rising."

So has the organic matter content of his cropping soils, which contain about 5% organic matter in a district where the average is about 2%.

Rick, who believes growers cannot continue to degrade their land and rely on "'icides" and petroleum-based fertilisers into the future, says farming is about growing living things but using herbicides, fungicides and insecticides ('icides) is about killing things.

This concept will be the starting point for an exploration of soil health and cropping systems designed to protect and improve cropping soils, their moisture-holding capacity and productivity.

Rick will outline alternatives to tillage and chemicals that have worked for him and explore concepts he believes can be applied successfully in Australia. He will also provide 'real numbers' illustrating the increase in water use efficiency, reduction in input costs and greater profitability that have resulted from his transition from full tillage to a lower-input, no-till system approach to soil care.

He will also discuss ways to introduce and integrate multi-species cover crops into dryland cropping systems.

**Echuca farmer GRANT SIMS**, runs a 4,100ha family farm that has been owned by the family for six generations. It was a mixed farm producing grain crops and sheep for wool and meat until 2012, when Grant sold the stock to concentrate on cropping and implemented a full stubble retention system and a CTF layout based on a 12m working width.

In 2008 he stopped using granular fertilisers and switched to a biological liquid fertiliser. He no longer uses insecticides, fungicides or seed dressings unless absolutely necessary.

"A big part of our system is cycling the stubble through the soil. If we didn't have that stubble feeding the soil's biology we'd need to use more inputs to feed the crops. Once you get the stubble cycling, it really does feed the soil and fire up the biology.

"We're making the biology and microbes work. We use biological fertilisers so they have to work to get fed and in doing that, they're working against pathogens."

Stubble retention, controlled traffic and no cultivation have improved soil health on the Sims property, where the growing season rainfall (GSR) averages about 210mm, and Grant is now exploring issues around cover and companion crops with the aim of further improving his soils and productivity.

He has also recently gone 'full circle' with livestock; introducing cattle into his farming system as a soil health tool.

Grant will discuss his farming system, the transition to stubble retention, controlled traffic and zero-till and the impacts of those changes plus the move away from synthetic fertilisers, insecticides and fungicides on soil health, productivity and profitability.

He will also outline his experiences with companion and cover cropping and explore how he sees these concepts and livestock fitting into his farming system.

**SANTFA R&D Manager GREG BUTLER**, an innovative and lateral thinker with a strong commitment to farmers and farming, has contributed to the development and deployment of sustainable farm technologies for more than 20 years.

In his presentation Greg will detail the latest developments in the SANTFA-initiated project to develop the AquaTill liquid coulter, which uses an ultra high pressure water jet instead of a physical coulter to cut through crop residue.

He will also outline a new project to explore the potential of ammonium poly phosphate (APP) as an in-paddock fire retardant. APP, a commonly-used liquid fertiliser, is a registered flame suppressant used in the manufacture of a variety of products including carpets and pyjamas. If it proves successful in reducing the flammability of stubbles it could reduce the risk and intensity of paddock fires and so minimise the risk of catastrophic events such as the Pinery fires.

Greg will also discuss:

- The Mallee revegetation project, which is in its final stages.
- SANTFA's biochar research, aspects of which have been picked up and replicated by University of Kansas researchers who have found that banding low rates of biochar in corn produces similar positive responses to those achieved in trials with wheat in SA.

# REGISTRATION FORM

## TAX INVOICE ABN: 85 250 602 181

Please keep a copy of this form for your records. A receipt will only be forwarded on request.



SANTFA Member (name) .....

Please list names of attendees below, including registering member.

Attendee 1 .....

Attendee 2 .....

Attendee 3 .....

Attendee 4 .....

Note: No refunds, but transfers permitted.

Do you agree for SANTFA to pass on your contact details to SAGIT for the purpose of receiving research results in the future? **Yes** or **No** (please circle)

### FORUM SELECTIONS

Please circle one selection per attendee for the forum session (A or B).

Attendee 1 Forum A B Attendee 3 Forum A B

Attendee 2 Forum A B Attendee 4 Forum A B

### REGISTRATION & PAYMENT DETAILS

Note the pre-conference BBQ buffet at the Weintal Hotel/Motel at 6.30 pm on Thursday, February 23.

Please insert the relevant number of registrations in each box

	Cost	Total
<input type="checkbox"/> Member, family & employee registration(s)	\$180	.....
<input type="checkbox"/> Non-member registration/s	\$425	.....
<b>Sub-total</b> .....		\$ .....
<input type="checkbox"/> Early Bird rebate – save \$30 (subtract \$30 for each registration paid by Feb 1)		.....
<input type="checkbox"/> Pre-conference BBQ buffet	\$39	.....
<b>Total payment due</b> .....		\$ .....

### PAYMENT METHOD

Cheque (make payable to SANTFA)

EFT (use your surname as a reference)

BSB: 105 030 Acc no: 043 080 540 Acc name: SA No-tillage Farmers

Credit card  VISA  Mastercard

Name on credit card ..... Expiry date ..... / .....

Card Number

CCV number    Total Amount \$ ..... Signature .....

Please complete the above information and post or fax registration and payment to SANTFA, PO Box 930, Berri, SA 5343 or fax (08) 8125 6502.

For further enquiries contact Leighton Pearce at SANTFA on 0427 688 028 or leighton@santfa.com.au

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