

# UNFS UPDATE



Upper North Farming Systems Newsletter

September 2017

## Welcome from our new Chairman

Welcome to our latest UNFS Update. I look forward to being your new chairman of UNFS for the next two years. I wish to thank Barry for his role as chairman for the previous two years. His enthusiasm, knowledge, industry contacts and commitment to the role has been invaluable to our group. I am pleased that Barry will continue to be on our strategic board. I would also like to welcome Matt Nottle as our new vice chairman. It is great to see young people willing to take on these positions. UNFS continues to provide quality events and projects for its members. Once again, we had a very successful Expo with 80+ people attending this event with four great speakers combined with an impressive trial site visit looking at a whole range of break crop options. A successful Western Spring Crop Walk was held on August 30th, hosted by the Nelshaby Ag Bureau. The Eastern Spring Crop Walk is on September 14th and the Ladies on the Land workshop on September 12th, so I encourage people to make the time and get along to these events. James Hagan will also be touring our region on September 20th-21st presenting on 'machinery upgrade decision making' and 'controlled traffic farming'. Make sure you check your emails for flyers detailing these events. By: Matt McCallum



## 2017 Annual Members Expo



### Also In This Issue

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- Grain Growers Leaders Program
- GRDC profit growth
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- GRDC investment in young scientists reaping rewards

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- Wool keeps!
- Lentil love: supporting pulse growers at the heart of new publication
- AGT varieties for 2018

# UNFS Project Update

By Hannah Mikajlo

Last month UNFS held its Annual Members Expo in Booleroo Centre. The day was attended by roughly 80 people, including members and sponsors. Feedback from the day has been overwhelmingly positive and we look forward to holding another great event next year.

Aside from our expo, UNFS has been keeping busy with all our other various projects. We've been sending out regular Yield Prophet reports to all our members, using ProductionWise, running Time of Sowing and micronutrient trials and preparing for our spring crop walks. We're also in the early stages of two new projects, which will be focused on micronutrient deficiencies and soil acidification in the Upper North region. There are also plans for some pulse extension workshops in the future. Although our flagship Stubble Initiative project is due to wrap-up in the middle of next year we still have plans to include some more trials, and soon we'll be releasing new guidelines on statice and maireana weeds, yellow leaf spot disease, mice, snails, earwigs and millipedes.

The coming week will be a busy one for UNFS. Jess Koch's Ladies on the Land group will be holding a workshop on Tuesday 12th September. Linda Eldredge, the guest speaker, will be presenting on the "7 deadly sins of business planning." The following day, representatives from SAGIT will be paying a visit to our Time of Sowing trial, which they are funding. So far the trial has been going well. The earlier-maturing varieties we sowed back in mid-April have been flowering over the last couple of weeks and we've started seeing a fair few frosted heads, particularly in Hatchet and Trojan. The new winter wheat variety from AGT we're testing is up to the booting stage, with some heads just starting to emerge. The plots we sowed in early and late May aren't showing any signs of frost damage and are growing nicely. Our Eastern Spring Crop Walk will also be held next week on Thursday 14th September. In addition to visiting the Time of Sowing site, the day will include presentations Leet Wilksch and Hamish Dickson on AgByte frost charts and livestock feed respectively.







Thursday 14th of September

Booleroo Centre District  
2:00pm to 5:30pm



**Admission:** All welcome. Free for UNFS Members. \$10 for non-members.

**2PM** - Meet at Matt Nottles place 2kms east of Booleroo to look at pasture demonstration site. Hamish Dickson will be onsite from AgriPartners talking about feed types. Seed representatives will also be on site.

**3:30PM** - Meet at the time of sowing site at Fullerville where there will be;

- ♦ Discussion on time of sowing trial and a walk through.
- ♦ Leet Wilksch from Agbyte will be onsite to explain the Agbyte Weather station and how to correctly read and interpret it.
- ♦ Discussion on the micronutrient trial and acidity project.

**Contact:** Matt Nottle 0428 810 811  
[www.facebook.com/UpperNorthFarmingSystems](http://www.facebook.com/UpperNorthFarmingSystems)



Government of South Australia  
Northern and Yorke Natural  
Resources Management Board

RURAL SOLUTIONS SA



Australian Government  
Department of Agriculture  
and Water Resources

## GRDC investment in young scientists reaping rewards

Investment in Australia's young agricultural scientists by the Grains Research and Development Corporation (GRDC) is paying dividends for the nation's grain growers and the broader industry.

Through its sponsorship of the grains category of the annual Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry, the GRDC is promoting innovative research that has game-changing potential.

Take for instance the recipient of the 2017 GRDC-sponsored award, Caitlin Byrt, whose studies are already having a significant impact.

A Postdoctoral Fellow at the University of Adelaide's School of Agriculture, Food and Wine, Dr Byrt has been using her GRDC sponsorship to study the roots of wild relatives of barley crops to determine what makes them so tolerant to saline conditions. She hopes that by crossing these traits into modern cultivars, higher grain yields can be achieved.

"There has already been a really exciting development – in collaboration with fellow GRDC-supported researchers we have identified a key gene in barley that is influencing the amount of sodium that accumulates in the leaves in saline conditions," Dr Byrt said.

"I'm now further testing the function of this gene, and collaborating with researchers in Scotland to look at the variation in this gene in a larger range of wild relatives of barley."

Dr Byrt's studies into salt tolerance in barley follows a successful outcome from a similar project looking at a wild relative of wheat, another GRDC research investment. She was able to identify two key genes which made a wild wheat variety more salt tolerant, and these were crossed into modern cereal varieties.

The project achieved a 25 per cent increase in durum wheat grain yield in saline soils, and the traits and genes were distributed to more than 18 countries.

Dr Byrt says she hopes her GRDC-sponsored barley project will ultimately result in Australian growers having access to cultivars with greater salt tolerance and the potential to lift yields and profits.

And she encourages 18 to 35-year-old innovators like herself to apply for grants through the Science and Innovation Awards which are designed to support early career researchers and scientists in developing new approaches to industry issues and, in turn, make Australia's agricultural industries more productive and competitive.

Eleven industry award categories are available in the 2018 round of the awards which also support the career pathways of the award recipients and highlight the opportunities, innovation and technologies in modern agriculture.

Each winner will receive a grant of up to \$22,000. One recipient of an industry category award will also receive the Minister for Agriculture and Water Resources Award, with additional project funding.

Applications close at 5pm AEDT on October 13, 2017. For further information on the awards, visit [www.agriculture.gov.au/scienceawards](http://www.agriculture.gov.au/scienceawards), email [scienceawards@agriculture.gov.au](mailto:scienceawards@agriculture.gov.au) or phone 02 6272 2303 or 02 6272 2260.

Contact: Sharon Watt, Porter Novelli, Phone 0409 675100

Caption: Caitlin Byrt, recipient of the 2017 GRDC-sponsored Science and Innovation Award, has been using her sponsorship to study the roots of wild relatives of barley crops to determine what makes them so tolerant to saline conditions. She hopes that by crossing these traits into modern cultivars, higher grain yields can be achieved. Photo: Wendy Sullivan

GRDC Project Code: BAE00026

Media releases and other media products can be found at [www.grdc.com.au/media-news](http://www.grdc.com.au/media-news)



Jamestown Agricultural Production Systems.

# JAPS

## Cropping Tour Wednesday 20<sup>th</sup> Sept.

Meet at Jamestown Bakery 12 noon.

[Pete Kitschke.](#)

Fertiliser trials. Liquid, granular, combinations and nill strips.

Section Control

Can we cut input costs?

Control Traffic Farming

CTF Machinery Tyre kick. Scott and Luke Clark

6PM JAMES HAGAN TALK

Machinery and CTF Talk

COMMERCIAL HOTEL INCLUDING TEA

ALL WELCOME \* RSVP WOULD BE APPRECIATED

Luke Clark 0429840564



# NORTHERN AG



## NEW FERTILISER DEPOT

NORTHERN AG has just completed its NEW fertilizer depot, located on Colin St. (Silo Road), Booleroo Centre. The site allows us to accurately weigh and blend a number of different products to growers specific needs without the need of a weighbridge. To experience the convenience of this new facility contact us on any of the following numbers.

NORTHERN AG: 86 672 119

DUSTIN BERRYMAN: 0428 672 330

PHIL GREEN: 0428 672 119



NORTHERN AG: 86 672 119

MATT FOULIS: 0428 515 489

ANDREW CATFORD: 0419 442 960



## UNFS Family News

The next generation of agricultural youngsters is on the way with many of the UNFS committee having babies come into their lives in the last year or two. Here's a story from one of them.



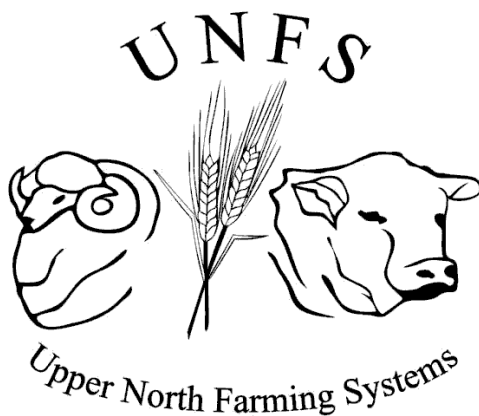
Board Member Andrew Kitto with his Grandson Archie

### Wool Keeps!

Hi. I'm Archie. The woolen sweater I'm wearing was knitted by my Grandma, spun by Great-grandma 20 years ago and Grandpa shorn the sheep in 1985 before my mum was born.

Here's grandpa (Andrew Kitto) and me.

Below is my Grandpa shearing the sheep in 1985.



### DATES TO REMEMBER:

LOTL final workshop - Tuesday 12th of September

Eastern Crop Walk - Thursday 14th of September

Jamestown Hub - 20th September

James Hagan Visit - 20th and 21st September

Jamestown Hub - 20th - info attached

Nelshaby Hub - 21st - 1pm - Napperby Tennis Club - contact Chris Crouch

Gladstone/Laura and Booleroo Hub - 21st - 5pm - North Laura Hotel - contact Matt McCallum



Jamestown Agricultural Production Systems.

## JAPS

### Livestock tour 21<sup>st</sup> Sept.

Meet at Jamestown Bakery 9am.

Lachie Smart - Wirrabarra

Confinement feeding lambing ewes

Pasture Management

'The cattle are Back'

Reducing stock numbers and maintaining wool cut

Electric temporary fencing

Rodney Hammat

Grazing Brassica/Canola compared to conventional canola

Best pasture mixes for productivity

ALL WELCOME \* RSVP WOULD BE APPRECIATED.

Luke Clark 0429840564

The background of the advertisement is a photograph of a green and yellow John Deere utility vehicle parked in a field. In the top left corner, there is a small graphic of a satellite and a stalk of wheat. The text 'AGTECH' is in large, bold, green and red letters, with 'SERVICES' in smaller black letters below it. Below that, it says 'YOUR PRECISION AG SPECIALISTS' in green. A quote in blue italicized text reads: 'Our SIMS packages can help you manage your inputs, improving your soil health, maximising yield potential and maximising your profitability.' The 'SIMS' logo is in large, bold, blue and red letters. Below it, the words 'SOIL', 'INFORMATION', 'MAPPING', and 'SYSTEMS' are in blue, with 'pH', 'Potassium', 'Phosphorus', 'EM38', and 'Nitrate' in black below them. At the bottom, the phone number 'Ph: 0407 030 244' is in large black letters, and the text 'See Us at Paskeville Field Days, Site 459 Cunliffe Road' is in red.

**AGTECH**  
SERVICES  
YOUR PRECISION AG SPECIALISTS

*Our SIMS packages can help you manage your inputs, improving your soil health, maximising yield potential and maximising your profitability.*

**SIM.S**  
SOIL INFORMATION MAPPING SYSTEMS  
pH Potassium Phosphorus EM38 Nitrate

**Ph: 0407 030 244**

**See Us at Paskeville Field Days, Site 459 Cunliffe Road**



## Lentil love: supporting pulse growers at the heart of new publication

Grain growers' love of lentils continues to flourish in the southern cropping region – a fact well recognised by the Grains Research and Development Corporation (GRDC) which has released a new publication to support lentil producers.

The GRDC's *Southern Region Lentil GrowNotes*™ is a one-stop information digital resource providing year-round guidance on all aspects of production of lentils, a versatile and lucrative pulse crop that offers a number of financial and rotational benefits in many cropping systems.

Available at <https://grdc.com.au/resources-and-publications/grownotes/crop-agronomy-regional>, the publication includes comprehensive advice on planning and paddock preparation, growth physiology, nutrition, weed control, pest and disease management, pre-harvest treatments, harvesting, storage and handling, environmental issues, marketing and current research.



With the area sown to lentils continuing to grow – including into non-traditional, lower rainfall production zones in south-eastern Australia – the digital resource is a timely aid for new and established lentil growers as they manage their crops through the 2017 growing season and beyond.

Contact: Sharon Watt, Porter Novelli

Phone 0409 675100

## THE RUSSIAN WHEAT APHID

**Source:** [http://www.pir.sa.gov.au/research/services/reports\\_and\\_newsletters/pestfacts\\_newsletter/pestfacts\\_issue\\_4\\_2016/the\\_russian\\_wheat\\_aphid](http://www.pir.sa.gov.au/research/services/reports_and_newsletters/pestfacts_newsletter/pestfacts_issue_4_2016/the_russian_wheat_aphid)

RWA is one the world's most economically important pests of wheat, barley and other cereal grains. It is native to southern Russia, the Middle East and Central Asia, but since the late 1970s and early 1980s, has rapidly spread to other major grain producing regions in Europe, Africa, North America and South America.

Unlike other cereal aphids that damage plants by removing nutrients, RWA also injects salivary toxins during feeding that cause rapid, systemic phytotoxic effects on plants, resulting in acute plant symptoms and potentially significant yield losses.

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**Tuesday 12<sup>th</sup> September**  
**Booleroo Centre Community Centre**  
**9:00am—2:00pm**

*2012 Nuffield Scholar, Linda Eldredge co-owns and co-manages farming properties west and north of the Clare Valley. This combined with her education and vast range of knowledge across finance and agribusiness has seen Linda being acknowledged as a highly skilled lecturer and consultant with exceptional communication skills and the practical ability to connect and communicate with the rural community on all levels. Linda will present on the:*



**“The 7 deadly sins of business planning”**

*How to succeed in the game of life and agri-business despite what you see as barriers....*

In an ever changing world of global economics, climate change and the reality of declining terms of trade for Australian agri-businesses, how does the traditional family farming business survive and thrive in the future ....

This workshop will challenge the existing paradigms of business/succession planning, marketing, strategic planning, fiscal/capital management and human investment where all that has been presented before as the road map to success is challenged and debated and alternative strategies explored to allow the industry to capture the exciting global opportunities and encourage the brightest minds and the passionate souls of this new generation of agricultural voyagers.

This new understanding of business is driven by a very tactile and innovative learning delivery which is captured in the Benjamin Franklin approach of “Tell me and I forget, teach me and I may remember, involve me and I learn.”

**Catering: Lunch supplied**—please bring a plate to share for morning tea

**For further details and RSVP:**

**Susan Murray 0422 462 283**

**Email: [admin@unfs.com.au](mailto:admin@unfs.com.au)**



**National  
Landcare  
Programme**



TYING IT  
 ALTOGETHER—  
 “7 DEADLY SINS OF  
 BUSINESS  
 PLANNING”

GUEST SPEAKER:  
 LINDA ELDRIDGE

ELDRIDGE AND  
 ASSOCIATES  
 CONSULTING AND  
 TRAINING

FREE  
 WORKSHOP



PO Box 323  
 Jamestown 5419  
 Twitter: @UnfsNorth  
[www.unfs.com.au](http://www.unfs.com.au)

## Knowing when frost strikes is key to avoiding total crop losses

In-paddock temperature measurement could assist grain growers in determining whether their crops have been subjected to frost, therefore enabling them to quickly activate strategies to salvage a return from affected crops.

Temperature monitoring within a paddock in frost-prone areas is seen as an important tool, yet very few growers measure temperature at the susceptible parts of their property, according to Agrilink Agricultural Consultants principal consultant Mick Faulkner.

Mr Faulkner, who is part of the Grains Research and Development Corporation (GRDC) National Frost Initiative (NFI) project, "Spatial temperature measurement and mapping tools to assist growers, advisors and extension specialists manage frost risk at farm scale", says growers should consider using temperature loggers to more accurately identify when low temperatures occur.

"Until now, frost identification has often been registered by the presence of ice at or after dawn, at ground level near the farm residence," Mr Faulkner says. "But this may not reflect the actual temperatures at the susceptible parts of a paddock where crops are being grown."

"Often frosts that have occurred earlier in the night but have cleared by dawn are missed, and frosts that caused ice on lawns are assumed to have had a similar effect in paddocks but that may not necessarily be the case."

Temperature monitoring equipment, such as Tiny Tags, iButtons and weather stations, are currently commercially available and can help inform growers' frost mitigation strategies and enable them to accumulate data over numerous seasons to develop farm frost incidence and severity maps. Such equipment is recommended as part of an integrated management plan to enable growers to build their knowledge base of their properties to mitigate the impacts of frost, a central focus of the GRDC's NFI, of which the spatial temperature measurement and mapping tools project being led by Steven Crimp from CSIRO is a major contributor.

Mr Faulkner says temperature loggers should be situated at or just above the canopy height and raised every week or so during the growing season to account for crop development, particularly when the head is emerging (booting to milk development or Growth Stage 40-80).

"As this is the most sensitive stage for the plant, accurately measuring temperature experienced by the head is most critical at this stage."

Where possible, monitoring should be done in a number of locations that take into account differing factors that influence frost impact, such as varying landscape gradients (on the flat, break of slope and a short distance up a slope in areas affected by cold-air drainage) and soil types (particularly from darker loamy soils to lighter sandy soils).

While this is the most accurate method to collect data on the temperature the plant has been exposed to and likelihood for frost damage, data from sites further away, such as fence lines or other weather stations on the property, may still be useful.

Mr Faulkner, who is also a member of the GRDC's Southern Regional Cropping Solutions Network, says using data from the closest Bureau of Meteorology site to determine farm temperature may be valid for some farms but is usually inadequate for most.

*Continued on following page...*

## Australian Grain Farm Leaders program now open for applications

The objective of the Australian Grain Leaders Program (AGLP), an initiative of Grain Growers Limited is to identify and build the capability of emerging young leaders in the Australian grains industry.

The AGLP is open to up to 10 individuals from across the Australian grains industry supply chain aged 21-40 years.



**HOW TO APPLY** Further information on the program and nomination forms can be downloaded from the GrainGrowers website: [www.graingrowers.com.au/education-events/australian-grain-farm-leaders-program](http://www.graingrowers.com.au/education-events/australian-grain-farm-leaders-program)



## Continued from previous page

As part of the NFI project, in which Agrilink is involved, temperature loggers have been installed at trial locations in the Mid North of South Australia as well as at a number of on-farm monitoring sites for the past two years. The results indicate minimum temperatures between the BOM sites (1.2 metres above bare ground) and the height of the crop fluctuate significantly and there is greater variability in temperature in spring than winter.

Mr Faulkner says the time from frost damage occurring to identification is critical.

"Identification of frost damage is important because it enables a grower or adviser to understand the impact of frost on yield and extent of the area of damage. Assessment provides information on financial exposure and immediate mitigation options which include cutting for hay or silage, and grazing a standing crop."

Mr Faulkner advises that the parts of crops that should be inspected regularly include:

- Cereals – juvenile damage in high stubble loads; all internodes during stem elongation and the reproductive period; the soft tissue above each node; the stem where the flag leaf attaches; whole heads during and after booting; anthers, stigmas, embryos and grain.
- 
- Pulses – juvenile damage in high stubble loads; leaf death of lentils, stems of faba beans and lupins; bacterial blight of some pea cultivars; flower abortion; developing pulse pods; and grain inside pods.
- 
- Canola – leaf damage in juvenile plants; stem splitting; flower abortion; developing pods; and grain in pods.
- 

Through the NFI, consultants are researching sensors and other methods to more accurately identify damaged plant tissue or damaged parts of a paddock soon after frost events, which each year inflict an estimated average of \$400 million in crop losses in Australia.

Since 1999, the GRDC has invested in more than 60 frost-related projects. As of 2014, investment in frost research increased to \$4 million a year through the five-year NFI. The initiative aims to deliver to growers a combination of genetic and management solutions, along with tools and information to better predict, plan and manage frost events.

More information on frost management can be found in the GRDC Tips and Tactics publication, [www.grdc.com.au/ManagingFrostRisk](http://www.grdc.com.au/ManagingFrostRisk), and via the GRDC's suite of GrowNotes™ publications at <https://grdc.com.au/Resources/GrowNotes>.

For Interviews contact: Mick Faulkner, Agrilink, Phone 0428 857378

Contact: Sharon Watt, Porter Novelli, Phone 0409 675100

Caption: Agrilink consultant Mick Faulkner demonstrating how to assess stem frost damage during a GRDC frost management workshop.

GRDC Project Codes: CSP00198, UA00162, CSP00180, CSP00202, DAW00234, DAW00234, DAW00241, CMA00002



**David Hill**

Broker

ANZIIF (Snr Assoc), CIP, Dip F.S. (Brok), QPIB



**Please Note - our office and fax numbers have now changed**

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**For your comprehensive crop insurance cover contact David Hill on Ph: 8667 4300**



# Upper North Farming Systems

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