UNFS UPDATE

Upper North Farming Systems Newsletter May 2017

New Projects for the Upper North in 2017

Ruth Sommerville

UNFS is very excited to announce a number of new projects for the region in 2017. All of these projects have come through issue identification and project planning by the UNFS Operations Committee. It is a great vote of confidence by the funding bodies in the work being done by your representatives on the UNFS Committees that all of our prioritised projects from 2016 will be operational in 2017.

Micronutrient Deficiency has been a keen topic of interest over the past few years. **South Australian Grains Industry Trust** (SAGIT) has recently funded UNFS to run a 3 year trial looking at increasing the knowledge and understanding of Micronutrient Deficiency in the Upper North. With multiple trial sites at both plot and paddock scale this project will look at 2-3 key micronutrients and whether there is a profitable option for managing these deficiencies. The trial will start in July 2017.

The **SAGIT** funded Weed Seed Burning Trial, started just after harvest last year, is in its final stages but needs your help. We are still looking for paddocks that are going to be burnt for temperature readings to be made on. We are particularly keen for any windrows still to be burnt, but whole of paddock burns are also of interest. If you have a paddock you are going to burn please ring our Project Officer Hannah, even on short notice, and let her know. If she can get to the paddock and get 10 measurements across the paddock (in safe locations) it would really help this project. No changes to your burning required, Hannah will use an IR heat gun to measure the temperature within the fire zone and just needs a safe spot to stand.

Productive pastures are a key element of the mixed farming enterprises of the UN. Utilising improved pastures as a break crop has been proven to result in an economic gain to both the cropping enterprise as well as the livestock enterprise over a 3-5 year period. The new Pasture Options Demonstration Sites aim to show some of the new varieties, species and mixed pasture options available for improved pastures and where they may fit within grazing enterprises and as a break crop for a cropping enterprise. These sites have been made possible as a result of the **PIRSA 2017 Grower Group Award** prize money recently won by UNFS.

ProductionWise Demonstration Paddocks are being established this year in an add-on to the Yield Prophet Sites. This year each site will have both Yield Prophet modelling and ProductionWise modelling undertaken at the site. This is to demonstrate multiple options for modeling and aims to improve the information available to each of our members for decision making regarding soil moisture, plant available nutrition and crop yield potential. This has been made possible through provision of this software to UNFS by **GrainGrowers** under a sponsorship arrangement. Still a few sites available…if you are interested in hosting a site contact Hannah today!

We are also in negotiations to undertake a Soil Acidity project beginning in July 2017… details to come soon!

More project ideads needed for the next planning events in Spring...please let your Hub Reps and Strategic Board Members know what you would like us to focus on!

Also In This Issue

Seeking Paddocks/Windrows to be burnt

UNFS is currently conducting a trial investigating the burning of weed seeds in low-rainfall environments. The project will examine the temperature and duration of heat required to effectively burn seeds from weeds including barley grass, brome grass, wild oats, Indian hedge mustard, onion weed, Lincoln weed, statice and fleabane. As part of the project, we will be sampling crop residue levels in the windrows/ paddocks to be burnt and measuring the temperatures reached. We are still looking for paddocks and windrows to use in the project, so if you or someone you know are planning on having any burn-offs, please let Hannah know (0449 676 024 or projects@unfs.com.au).

Administration Position Vacant

Unfortunately the announcement last month of Rebecca Gum as the Admin Officer for UNFS was a little premature. Due to a change in personal circumstances Rebecca has been unable to take up this position. UNFS would like to seek a resident of the region to undertake a casual administration position to support the staff and board of the group. The role will have an average of 5hrs per week averaged across the year with peak periods in the field day season of July, August, September. It has highly flexible working hours and is a work from home position as long as internet access is sufficient. If you or any one you know may be interested in this position please contact us for a full position description.

Winners are Grinners

Adapted from AgExcellence Article

UNFS was awarded the highly valued PIRSA Grower Group Award at the 12th Ag Excellence Annual Forum & Awards night held recently.

The Award went to UNFS for embracing the challenge of identifying a unique research topic to benefit the local and broader agricultural community. UNFS will put the $5,000 towards building on the GRDC funded Crop Sequencing Project with two pasture options demonstration sites established over the next 2-years. These sites will explore the options for new annual and perennial pasture varieties and their suitability for the Upper North.

Scott Ashby PIRSA CEO, Ruth Sommerville, UNFS & Trent Potter Ag Excellence Chairman.

Ruth Sommerville accepted the award from PIRSA CEO, Scott Ashby on behalf of UNFS. Ruth acknowledged Matt Nottle as the driver behind the project as well as being a significant contributor to UNFS. Scott Ashby reiterated the importance of Grower Groups within the State and regional networks, describing local knowledge as a key ingredient to the broader success of the industry.

The 2-day Ag Excellence Forum provided the foundation to the Awards with a number of state and interstate speakers imparting their experience on topics as varied as opening speaker Nuffield Scholar, Chris Reichstein on 'How Farmers Learn' to closing speaker Rural Bank CEO, Alex Gartmann on 'Funding in to the future'.

Click here to read the entire article and learn of other award winners.

UNFS Barley Grass Trial

Author: Hannah Mikajlo

As part of a GRDC funded investigation into overdependence on agrichemicals in low-rainfall farming systems, UNFS has conducted a trial looking at cultural methods for suppression of barley grass. In the past, application of selective herbicides during non-cereal years has been a relatively simple and effective approach to managing barley grass, however herbicide resistance is increasingly becoming a problem. The aim of the UNFS trial was to examine how crop yield and weed seed carry-over were affected by different cereal species and varieties under different sowing rates and under pressure by barley grass.

The 2015-2016 trial was conducted on sites near Port Germein and Appila. In 2015 three cereal varieties were used in the trial. One was the wheat variety Mace, while the other two where the barley varieties Fathom and Hindmarsh. Compared to Hindmarsh, Fathom is known to be more vigorous and competitive. Two seeding rates (40 and 80 kg/ha) were used, and for each variety a best practice weed control treatment (80 kg/ha seeding rate plus chemical weed control – Sakura @ 118 g/ha on the wheat and TriflurX @ 2.5 L/ha on the barley) were used. The crops were established using 80kg/ha 28:13 fertiliser, and an additional 94 kg/ha urea was applied on the 20th June in response to Yield Prophet recommendations. A post-emergent broadleaf weed spray was also used across all treatments. In 2016, Fathom and Hindmarsh were again used, this time alongside the wheat variety Scepter. Seeding rates were 60 kg/ha (the standard district rate) and 120 kg/ha (double the standard district rate). Again, a best practice weed control treatment using the higher seeding rate along with either Sakura @ 118 g/ha for wheat or TriflurX @ 2.5 L/ha for barley was also tested. The crops were established using 72 kg/ha 18:20:0:0 fertiliser with 70 kg/ha urea banded beneath the seed.

In 2015, conditions were dry in May and early June. From the 14th of June onwards, there were good follow-up rains, and the rest of the season saw generally above average rainfall through winter and early spring. September and October saw a dry finish. In 2016, rains were again above average, although a late frost during early grain-fill devastated the wheat plots.

In both years, the results indicated that when no Sakura herbicide was applied to the wheat plots, there was no difference in the total number of weeds between the two seeding rates. There was also no difference in yield. In plots where the seeding rate was higher and Sakura was applied, the yield increased significantly while the biomass of weeds was lower. In 2015 there were no significant differences in the quality of the grain between the different plots, but there were more weed seeds in the plots where no herbicide was applied.

In plots sown with Fathom barley, there was lower weed biomass when the seeding rate was higher. This was observed in both years. When looking at the plots with the higher seeding rate in 2015, the yield was 14% higher when TriflurX was applied. In 2016, there was no significant difference in yield between the high seeding rate with and without TriflurX.

During tillering, there was no significant difference in the weed biomass when comparing the different seeding rates of Hindmarsh barley. During flowering, there was a difference, with lower weed biomass in the plots with the higher seeding rate. These results were observed in both years. In 2015, the crop biomass was not significantly different in the plots where TriflurX was not applied when compared to plots where it was applied. In terms of yield, there was no difference between the high and low seeding rates, but the overall yield reduction when compared with the herbicide-treated plots was around 17%. In 2016, yield was 0.5 t/ha higher at the higher seeding rate compared to the lower rate. There was no significant difference in yield between the high seeding rate with TriflurX compared to the high seeding rate without TriflurX.

In summary, the trial results from 2016 strongly supported the previous year's findings. The data showed that sowing a more vigorous barley variety such as Fathom at a higher rate in the presence of grass weeds could increase crop yield. In 2015, the yield benefit of 0.2 t/ha represents around $40/ha at a barley price of $200/t, while in 2016 the yield benefit represented $75-$120/ha at a barley price of $150/t. In both years this would mean a good return on the extra seed required to increase the sowing rate. The results of the trial suggest that there is no yield benefit to be gained from increasing the sowing rate of wheat.

Increasing the seeding rate of both barley varieties reduced the weed biomass as the crop developed. Weed biomass and weed seed carry-over did not seem to be affected by the seeding rate of wheat. In general, barley had a greater impact on reducing weed seed carry-over than wheat, particularly at the higher seeding rate.

Thank you to Barry Mudge for undertaking the research with assistance from Rochelle Wheaton at Hart Field Site Group and for compiling the original reports.

Barry Mudge discussing the trial at the 2016 Spring Crop Walk, just before it rained! Photo Ruth Sommerville

Improving Snail Control

Michael Richards, Northern & Yorke Regional Landcare Facilitator, 0427 547 052

Snail control can be improved through understanding how snails are behaving on your farm.

The majority of snail research has been undertaken in coastal areas with loam and sandy soils. A "time-lapse camera" recently installed at Clarks near Jamestown is assisting with increasing understanding of snail behaviour in heavier soils and inland conditions.

Key factors affecting snail control are;

- Weather conditions, stubble conditions, crop type, when snails are moving and feeding
- Numbers of snails per square metre. Snail types
- When snail egg laying occurs
- Soil type; more moisture is needed in heavier soils to trigger snail activity

Hand spreading baits in areas where you can regularly monitor, (*away from children and animals*) will help with planning bait strategies. Apply double paddock rates, or 20 baits per square metre, when hand spreading patches. Do not heap baits. Check for dead snails, snail condition (*are they juicy or pasty*) and consumption of pellets. Mice can consume snail baits before snails. Record weather conditions during the period. Temperature, rainfall, number of overnight dews to assist with optimising snail control.

The snail lifecycle is driven by soil moisture;

- Snails become active in sandy and loamy soils at 90% relative humidity, when there is sufficient moisture to darken the colour of the soil surface
- In heavier soils a rain event may be needed to trigger snail activity after hot weather
- In sandy and loamy soils round snails will move from one to four metres, with 5 hours above 90% relative humidity
- After 10 mm of rain round snails will move up to eight metres in sandy and loamy soils
- Egg-laying will occur when the soil is wet to a depth of 25 to 30mm, 14 days after mating
- Snails will continue to lay eggs in moist conditions, egg clusters are much smaller in seasons with dry autumns
- Snails are more likely to be a problem in pea and canola crops

Optimising snail mortality from baiting;

- Snail Mortality is highest in warm moist conditions when snails are feeding
- Bait degrades slower in late March, due to lower temperatures and shorter days when compared with February and early March
- Aim to purchase bait which hasn't been stored over the summer period, to avoid breakdown of the active chemical
- Snail mortality is lower in cold wet conditions, and snails will consume more bait before death
- Snail mortality is lower after snails have reached sexual maturity
- Aim to bait before egg laying. Snails can lay from 200 to more than 400 eggs per season
- Calibrate the bait spreader and check bait patterns across the spreader width (*Snail bait will not throw an even pattern, over the same width as Urea)*
- Uniform bait pellet size will assist with even spread of pellets. Try to minimize powdering of bait and remove powered bait from the hopper, before refilling as this will reduce the application rate
- Apply enough bait; (check the label for recommended rates)
  1. 5 kg of **4 mm** Bait equates to 5 baits / sq metre
  2. 5 kg of **2 mm** Bait equates to 12 baits / sq metre
  3. Baits vary in quality, find one that suits your need and budget
  4. Monitor effectiveness within 6 days of baiting
- The snail mortality rate per bait application is rarely over 85%, repeat applications are often required
- Monitor paddock borders and reapply bait to paddock borders prevent re-infestation of paddocks.

White Italian Snail. Photo PIRSA www.pir.sa.gov.au PestFacts

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
MATT FOULIS: 0428 515 489
ANDREW CATFORD: 0419 442 960

Border Bait Snails Now

Protect valuable crops, reduce harvest difficulties and downgrading of grain by baiting paddock perimeters now. Baiting paddock borders when crops are at early establishment is an ideal time to prevent re-infestation of clean paddocks by snails moving in from fence lines, roadsides, and adjacent areas. Snails are very active during damp conditions following seeding.

In 2014 snails had re-infested a clean paddock to a distance of forty meters by the second week of June. Snails from paddock edges can result in downgrading of several loads of grain and result in harvest delays due to gummed harvesters.

As plants become larger, fewer snails will be attracted to the bait and snails also become more difficult to kill as soils temperatures decrease. Snail movement, feeding and mating will continue during damp winter conditions, with snails laying eggs when the soil is wet to thirty millimeters. In many soils, twelve millimeters of rain will wet the soil to a depth of thirty millimeters.

It is important to apply enough bait to control the number of snails in the crop perimeter and adjoining areas. In areas with low to medium snail numbers apply ten kilograms of common metaldehyde type baits to achieve adequate control, where high snail numbers occur repeat applications will be required to control invading snails. Many farmers apply a band of forty to sixty meters of bait around paddocks.

More Information

Michael Richards, Northern & Yorke Regional Landcare Facilitator, 0427 547 052

To see videos of Snails on the move, and other farming information please visit the “On Farm” Facebook Group. There is a very practical Video clip on feeding livestock and managing pastures in early winter on the “On Farm” Facebook Site; www.facebook.com/groups/113788338706121/ or use your Smart Phone to scan the “On Farm” QR Code

There's green pick, but is there sufficient nutrition for your sheep?

Ruth Sommerville

April/May is a key period in ewe nutritional requirements to ensure productive lambing percentages and survival. It is also a period of low available plant nutrition in the Upper North. Now is a good time to have a quick refresh of what the nutritional value of your pastures are providing and where you need to be supplementing to ensure ewes remain in good condition either at joining or lambing depending on your planned lambing period. Don't let a focus on seeding result in a significant hit to your lambing percentages!

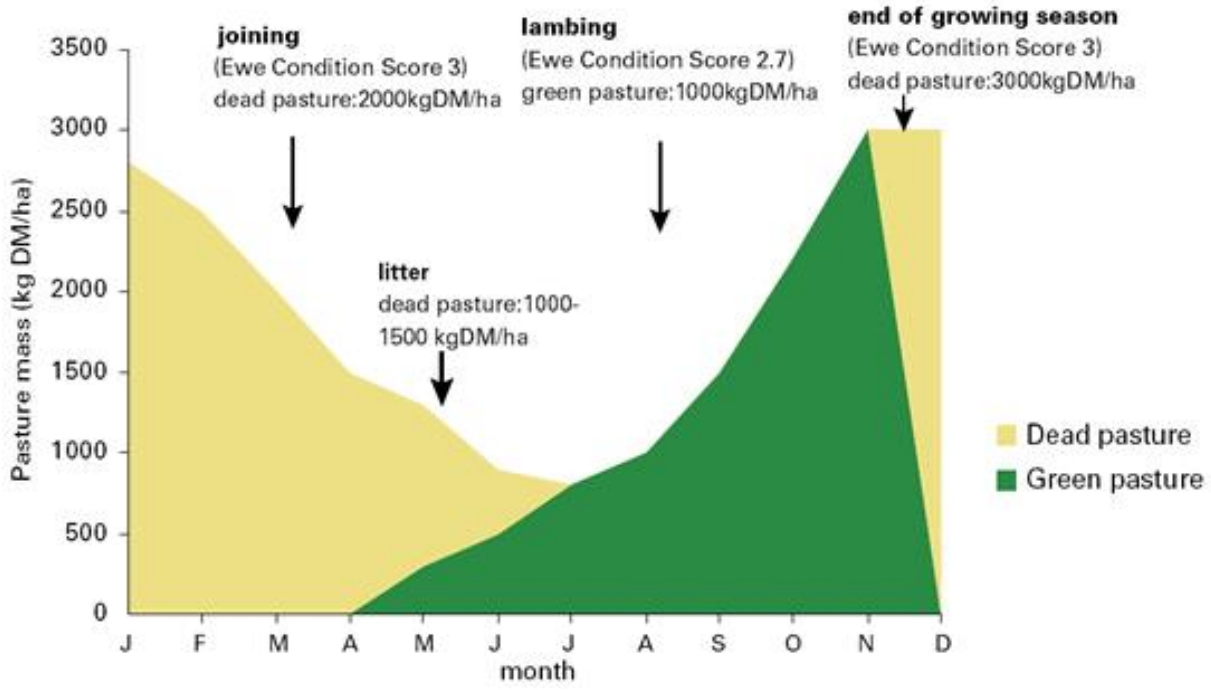


Figure 8.5, procedure 8.2, MMFS: Managing the risk of increasing pasture utilisation is all about planning ahead. Set targets, monitor and have trigger points for action when things deviate from your plan. Example for northern Victoria. Similar feed gap trend experienced in the Upper North, however values for kgDM/ha vary.

There are some great resources available on the internet:

- MLA: Determine feed requirements for sheep classes
- Making More From Sheep: Module 8—Turn Pasture into Product
- Lifetime Wool

Meeting the feed gap is the focus of a new project funded through the PIRSA Grower Group of the Year Award recently received by UNFS. There will be 2 demonstration sites planted this year to new crops and varieties suitable for developing improved pastures in the Upper North. Make sure you get along to these sites at crop walks held throughout the year to check out how you could meet future feed gaps and improve the profitability of your pastures.

SAVE THE DATE! Farming Together National Forum

Farming Together national forum will take place at the Adelaide Convention Centre on Tuesday, June 6. Got a vision for an ag-collaboration? Want to take your idea further? Meet like-minded people, hear first-hand experiences and learn from experts - for FREE!

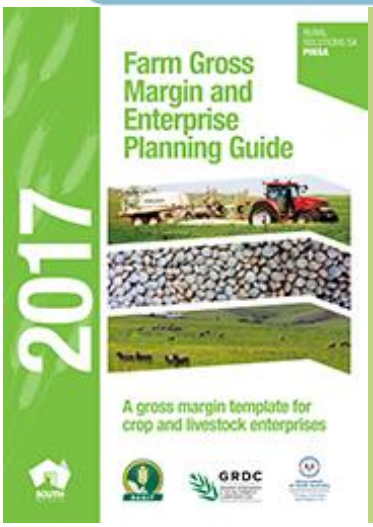
Alan Crabbe, CEO of Pozible, Australia's largest crowd-funding platform, talking about crowd-funding for agriculture. **Professor Derek Baker** from UNE will explain how to work with your supply chain and **Carolyn Suggate**, will describe how she co-founded Australia's first organic ag finance co-op. **Chris Sounness**, CEO of the Birchip Cropping Group will lead a panel discussion on opportunities arising from farmer collaboration. Also **Richard Heath,** general manager of research at the Australian Farm Institute, will share learnings about how US farmers collect and make money from the data their farm technology creates. **Associate Professor Leanne Wiseman** from Queensland's Griffith University will explain how recent changes in contract law offer options for small farming businesses. Other speakers include **David Rutley** from Thomas Food International, **Peter Stone** from Livestock SA both representing the Limestone Coast Red Meat Cluster. We will also be featuring four of our successful farm collaboration groups.

If you have ever wanted to form or expand a farmer-based group this is the must-see place-to-be.

Bookings open at https://www.surveymonkey.com/r/2017adelaideforum Limited seats, so get in quickly.

Email susan.webster@scu.edu.au for the info pack.

Farming together.



Farm Gross Margin and Enterprise Planning Guide 2017

The South Australian Grains Industry Trust, in association with Primary Industries and Regions SA (PIRSA) and the Grains Research and Development Corporation are pleased to again produce this annual publication on expected Gross Margins for broadacre cropping and livestock enterprises in South Australia. It incorporates latest information on input and output pricing to give estimates of the relative profitability of different farm enterprises, as an aid to decision making in enterprise selection.

Click here to view the guide.

Opportunities For SA Farmers

RABOBANK FARMER PROGRAM OPEN
Applications for the 2017 Rabobank Executive Development Program are open, with applicants accepted from across a range of commodities and locations in Australia and New Zealand. Held in Sydney, the first module runs from August 13 to 18, with the second module taking place in July next year. Only 36 farmers will be accepted. Deadline May 26. More? www.rabobank.com.au/bmp

AID FOR SMALLER EXPORTERS
The Australian Government is offering funds to help smaller exporters improve market access across the dairy, eggs, fish, horticultural, grain and meat sectors. **More?** Package Assisting Small Exporters

NATIONAL AG OPPORTUNITY
Applications are now open for the $14.9m national Farming Together program. This Federal Government initiative is a two-year campaign for primary producers and processors to collaborate and claim marketplace power.
Any Australian citizen who farms within the ATO-recognised guidelines can register to receive a free one-on-one consultation to discuss their opportunities and appetite to create a successful collaborative group. This could be either as a co-operative, as a collective bargaining entity or as a less-formal collaborative group. Existing groupings may also apply. The most-promising groups will be offered assistance for product research and development. Areas that are covered include advice on marketing, capital-raising, packaging, logistics and exporting as well as non-ongoing consultancy appointments. **More? www.farmingtogether.com.au or 1800 00 55 55.**

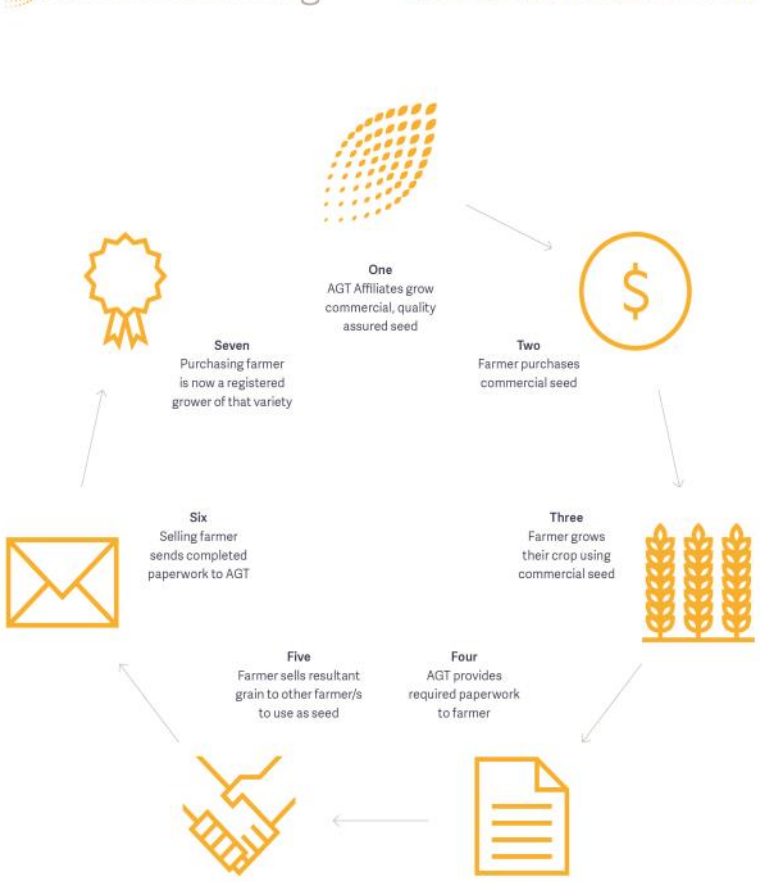
SA AGRIBUSINESS GROWTH PROGRAM
The Agribusiness Growth Program from Food South Australia offers business performance/plan reviews and recommendations for improvement. It also includes one-on-one business coaching to $10K with 25% co-contribution. Applicants must be ag/food businesses of 2+ years with turnover of $300K to $1.5m. Ongoing. More? http://foodsouthaustralia.com.au/2015/09/agribusiness-growth-program/

Seed Sharing™ Forms Due Now

Seed Sharing™ continues to be a great success, with new variety Scepter proving popular for seed sales between growers. Scepter is a Mace replacement type wheat, with an improved yield and disease resistance package and is expected to become the leading wheat variety over the next few years.

AGT reminds all growers that they must legally complete an AGT Seed Sharing Licence Agreement form now for all AGT varieties that were sold or purchased through Seed Sharing™.

Forms can be found at http://www.agtbreeding.com.au/sourcing-seed/seed-sharing or call us on (08) 8313 6810. Commercial seed of Scepter and other AGT varieties is also still available through AGT Affiliates or your local retailer.



Innovation Generation

Have you booked yet for Innovation Generation (IG)? Hurry! There's less than 55 days to go until kickoff for this hugely successful annual event for 18-35 year-olds in the grain growing industry.

This year our theme is **TELLING THE AG STORY IN A DIGITAL AGE.** We all know that digital technologies are changing farm production practices and informing decision-making on-farm in ways undreamed of a decade ago. But there's also social media, a huge free resource for communication. Who's doing it well in agriculture? How can we improve our efforts to promote our farms and businesses to our customers and stakeholders? How can we put a positive face on the Australian Grains Industry and agriculture? Come to IG this year and find out!

We're gathering at the Adelaide Convention Centre, conveniently located in the heart of the city centre in the beautiful Riverbank Precinct. The Centre is a short walk to the conference accommodation venue, Mercure Hotel, and a wide range of other international and boutique hotels. Public transport, the Adelaide Railway Station and a taxi ramp are on our doorstep.

You won't have time for sightseeing during the action packed 2017 IG conference so we've organised tours on Tuesday afternoon to give you a taste of what Adelaide has to offer within the ag industry. If you haven't been to Adelaide before, you might like to allow a couple of extra days each side of the conference to enjoy the city's exceptional food and wine, art, shopping, bustling bar scene and world-class events.

INNOVATION GENERATION 3-5 JULY 2017, ADELAIDE CONVENTION CENTRE. BOOK TODAY!

Test to control soil-borne diseases

Author: *Rebecca Barr—GRDC Paddock Practices Southern March 2017*

The wet season of 2016 will have favoured the multiplication of many soil-borne pathogens, with experts recommending that any growers contemplating growing wheat in paddocks following cereals or grassy pastures to consider using PreDicta B®.

If this shows there is a soil-borne disease risk, then they should consult their advisor about options to minimise the risk in 2017.

South Australian Research and Development Institute (SARDI*) soil biology and molecular diagnostics leader Dr Alan McKay says conditions in 2016 were favourable for increasing inoculum of take-all, crown rot, root lesion nematodes (RLN) and even cereal cyst nematodes (CCN).

Dr McKay says early results from PreDicta B® testing indicate take-all levels have increased on last year and could be among the highest levels seen for some time.

Dr Alan McKay leads the GRDC's soil-borne diseases program.

“The risk from take-all will be greatest for wheat following grassy pastures or other cereal,” Dr McKay says. “Summer rainfall will have reduced in the risk of take-all in some areas. How much the risk has reduced will depend on how long the soil remained moist to allow microbial activity to break down infected roots and crowns.

“This will vary with the amounts of rainfall, soil type and summer weed control. If growers are planning to sow wheat following grassy pastures or a cereal crop we recommend getting the paddock checked by PreDicta B®.
“PreDicta B® will identify the potential disease, what actually develops in crop will depend on measures taken by growers to reduce the risk and seasonal conditions. If we have a wet winter/early spring followed by a dry finish then there is the potential for take-all to cause losses up to 30-40 per cent. “In 2015 we had a high-risk situation with take-all but it didn’t express because of the dry season.”

Other results from PreDicta B® testing are showing the risk for crown rot and rhizoctonia is down slightly on previous years but remains significant. “White heads associated with crown rot were less common in 2016 due to the wet spring. However, the large crop stubbles mean there will be a lot of inoculum produced. Some growers may be contemplating burning to reduce the risk in some paddocks, but they need to be aware that burning will not remove the crowns which will also be infected.”

In paddocks with high risk of take-all or crown rot growers should aim to plant non-cereal crops such as pulses, oilseeds, or grass-free pastures to help reduce inoculum levels, Dr McKay says. “If that is not an option, growers could consider barley or oats as they will have much less yield loss than wheat,” he says. “It is important to note that even though barley suffers less yield loss than wheat, it will increase inoculum levels of take-all and crown rot, while oats will increase inoculum levels of crown rot and the oat attacking strain of take-all, so a break crop will still be required in 2018.”

If take-all levels are low to medium, and wheat is to be grown, then growers should consider a fungicide seed or fertiliser treatment registered to suppress or control take-all, keep paddocks weed free over summer and autumn, sow affected paddocks towards the end of the sowing program and sow between the rows of the last cereal crop.

Where PreDicta B® testing shows a risk of crown rot, growers who still want to grow cereals should then choose the least susceptible of the best adapted varieties.

Testing paddocks

At $235 per paddock, PreDicta B® is a low-cost option compared to the potential yield losses, especially considering there are few, if any, control options once the crop is sown.

Dr McKay advises growers to use a 10-millimetre core width, collecting the cores along the row of the previous cereal crop.

“Testing at-risk paddocks allows growers to make an informed decision on their rotations and other pre-sowing options to reduce the risk of losses,” Dr McKay says. “Examining the stubble for stem browning can be useful for determining the risk of crown rot next season, but for most other soil-borne diseases submitting soil samples to PreDicta B® is the best way to determine which pathogens pose the greatest risk to crops to be sown in 2017.”
The sampling methodology is critical to ensure results are reliable. Dr McKay says the most important factors are to use an appropriate soil sampling tool and add a representative sample of the stubble. “Growers in south-eastern Australia should sample to 10 centimetres with a 1cm

(Continued on page 11)

(Continued from page 10)

Table 1: Common soil-borne diseases, risk factors and control strategies

Disease	Risk factors		Control strategies
	Environment	Crop	
Take-all	• The wet spring in 2016 will built up inoculum in wheat and barley crops. • A dry summer and above average rainfall during 2017 create the highest risk.	• Wheat following a cereal or grassy pasture. • Risk greater if paddock limed.	• Non-cereal crops best option to reduce inoculum. • Maintain paddock weed-free and sow later in seeding program. • Fungicide treatments. • Sow between rows of last cereal.
Crown rot	• Dry summer. • Cereal-on-cereal rotations. • Stubble retention.	• Durum most affected.	• Non-cereal crops best option. • Sow between rows of last cereal. • Risk of yield loss less in barley than wheat. If sowing wheat, choose the least susceptible of the best adapted varieties.
Root lesion nematode	• Dry summer, or wet summer with uncontrolled hosts. • Late sowing. • Low fertility paddocks.	• Varies depending on which species present. Wheat and chickpeas are good hosts for *Pratylenchus neglectusand P. thornei.*	• Resistant crop and varieties, check crop disease variety guides.
Rhizoctonia	• Dry summers, uncontrolled summer weeds, green bridge, sub-soil constraints or cold soil during crop establishment	• Barley affected more than wheat.	• Grow grass free pulse, oilseed or pasture legumes to reduce inoculum. • Use soil openers that till below the seed. • Use fungicides to help protect the roots. • Avoid sulfonylurea (SU) herbicides. •Provide adequate nutrition, especially nitrogen, zinc and phosphorus.
Cereal cyst nematode	• Late break	• CCN susceptible cereals. • Low fertility paddocks.	• Non-cereal rotations. • CCN resistant cereal varieties. • Sow early.

probe," he says. "Consultants who participate in PreDicta B® training are now provided with an appropriate device so growers should ensure their consultant is using the right tool.

"It is also very important that the samples are collected from the right places. "Select the most important production zone within the paddock to sample; production zones are often driven by soil type. Samples should be collected from 15 locations within this zone, at each location collect three soil cores from along the rows of the previous cereal crop and add one piece of stubble about 5 cm long from the crown of a previous cereal plant or grass weed. "If durum is to be sown in the paddock, then add two pieces of stubble to from each location to the sample."

Production zones can have different spectrum of soil-borne diseases, so it's best to select the zone that represents the most important soil type in the paddock, rather than attempting to average over a range of soil types.

Samples are processed weekly, from January until sowing. Results for all PreDicta B® samples that arrive at SARDI by

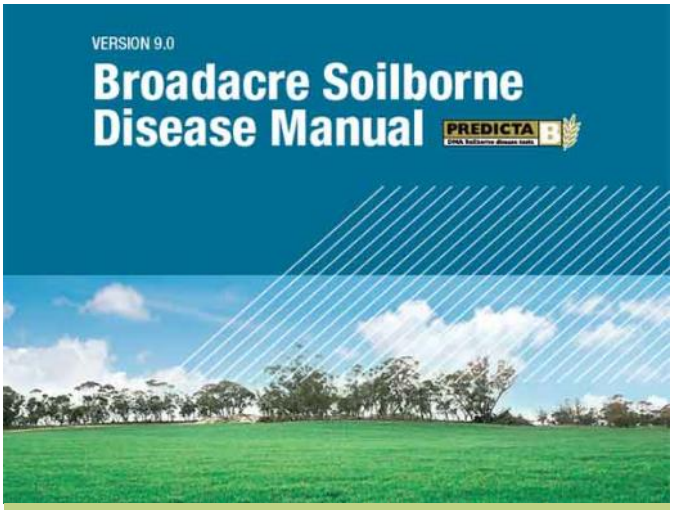
(Continued on page 12)

(Continued from page 11)

close of business each Monday are reported on the following Friday.

Other diseases

While take-all and crown rot present the highest risks for 2017, growers should also be aware of other soil-borne disease risks including root lesion nematode (RLN), cereal



The GRDC and SAGIT have produced a new manual, the Broadacre Soil-borne Disease Manual.

cyst nematode (CCN) and Rhizoctonia.

Dr

McKay says that while RLN levels plummeted during the millennium drought, levels have been gradually rising ever since. Conditions during spring 2016 have probably been very conducive for RLN multiplication."RLN doesn't often show distinctive symptoms, so without PreDicta B® testing, growers may simply think they are seeing an under-performing crop," he says."The disease reduces tillering and overall vigour and can reduce yields by about 15 per cent in cereals."

CCN levels are generally under control, however it can still be a problem where growers have grown too many susceptible varieties in the rotation. Trials from 2011 to 2013 showed that if CCN populations are allowed to increase losses can be up to 40 per cent in wheat.

Rhizoctonia levels following the wet spring are not expected to be as high as usual, however it is expected the disease will still cause problems in the low to medium-rainfall regions next year. The risk will be greater if the summer months are dry and conditions during crop establishment are not conducive for rapid early growth of the root system down the soil profile.

New manual

The GRDC, along with the SA Grain Industry Trust, have recently provided funding to upgrade the consultants' root disease resource manual developed for the PreDicta B® accreditation course. Any person completing this course can download the manual.

Growers are advised to ensure their consultant has reviewed the manual before providing advice on soil-borne diseases.

PreDicta B® sampling strategy

Collect three small cores (1 cm diameter and 10 cm deep,) from each of 15 different locations within the target production zone within the paddock.

Take the soil cores from along/in the rows of previous cereal crop, if these are still visible, and retain any stubble collected by the core (most soil-borne pathogens are concentrated under the rows of the last cereal).

If the rows can't be seen, take the cores at random.

Taking the soil sample in the inter-row, where pathogens concentrations are lowest is only recommended if a susceptible crop is to be sown between the rows and a grower wants to know if inoculum levels are low enough to take the risk.

Add one piece of cereal stubble (if present) to the sample bag at each of the 15 sampling locations – this improves the detection of crown rot and other stubble borne pathogens. Each piece should be from the base of the plant and include the crown to the first node (discard material from above the first node).

The maximum sample weight should not exceed 500g.

High-risk paddocks

Growers should perform PreDicta B® testing as soon as possible after harvest in any paddocks with:

- Any durum rotations;
- Cereal-on-cereal rotations where there is any history of the diseases;
- Cereal rotations where there is recent history of soil-borne diseases.

More Information

Dr Alan McKay,
08 8303 9375,
alan.mckay@sa.gov.au

Dr Grant Hollaway,
(03) 5362 2111,
grant.hollaway@ecodev.vic.gov.au

Useful resources

Access the PreDicta B testing service

GRDC Fact Sheets: Rhizoctonia, Crown Rot, Root Lesion Nematodes

GRDC Back-pocket guide: Cereal root and crown diseases

GRDC update paper: Sowing strategies to improve the productivity of crops in low rainfall sandy soils

Cereal disease guides: Victoria, South Australia

Study to Demonstrate Controlled Traffic Farming Benefits

Rebecca Barr

Low adoption of controlled-traffic farming (CTF) in southern Australia's low-rainfall zones has prompted the GRDC to invest in a new project to investigate the potential yield benefits from adopting these practices.

A GRDC survey found that in 2012 only four per cent of low-rainfall zone (LRZ) Mallee growers had taken up CTF, compared with 26 per cent of Victorian high-rainfall zone (HRZ) growers.

Agriculture Victoria soil physics group leader Peter Fisher is part of the Application of Controlled Traffic in the Low Rainfall Zone project, which aims to provide evidence-based information on the value of CTF for low-rainfall growers.

"Under traditional farming, we estimate growers traffic 100 per cent of the paddock over a few years," Dr Fisher says.

"With autosteer this might be reduced to about 50 per cent, and full CTF should bring it down to 10 to 15 per cent. The aim of the trial is to understand how this trafficking is affecting the compaction in the soils, and the effect on root and plant growth."

The project is examining four trial sites over four seasons at Minnipa and Loxton in South Australia, Swan Hill in Victoria and Lake Cargelligo in New South Wales. Each site is looking at: a control that has been under CTF for at least five years; one machinery pass on dry soil; one machinery pass on wet soil; and three machinery passes on wet soil. These passes replicate the weight of a 10 to 20-tonne trailer or chaser bin.

Yield response

In the first year of trials, yield responses were observed and the penalty from trafficking was found to be varied.

"Yield responses were observed at three out of four sites for the three passes on wet soil treatment, with a yield penalty of 30 to 40 per cent," Dr Fisher says. "The one pass on wet soil treatment reduced yields by 30 per cent on the heavier soils at Lake Cargelligo, but at the other three sites with sandier soils the effect was zero to 10 per cent.

"Only the Lake Cargelligo site saw any effect from one pass on dry soil, with a 10 per cent yield penalty. These results align with previous studies that have shown heavier soils are more at risk of soil compaction, and that driving on wet soils is far more damaging than dry soils."

Penetrometer findings

Researchers have also tested soil compaction using a penetrometer, which measures the resistance of soil to pressure. The soil depth where the penetrometer reads less than two megapascal (MPa) is a good indication of soil where roots can grow.

"The results aligned with the yield responses for the three treatments, with the one pass on wet soil and three passes on wet soil treatments giving the worst rooting depths of five to 13 cm," Dr Fisher says.

"A surprising finding was that even the control showed significant penetrometer resistance compared to nearby native vegetation, after five years of CTF."

The control areas showed a rooting depth of 15 to 20cm, compared with 50cm in native vegetation.

"This means there are potentially more yield benefits to be gained from CTF if growers can further reduce their compaction to what we see in soils with native vegetation," Dr Fisher says. "This might be seen from more years of CTF application or might be achieved more quickly through techniques such as deep-ripping combined with CTF."

More information:

Peter Fisher, 03 5833 5341, peter.fisher@ecodev.vic.gov.au

Ross Watson, 0427 552 282

Controlled-traffic farming Fact Sheet

Snapshot

Grower: Ross Watson
Location: Bulga, Victoria
Farm size: 2200 hectares
Enterprises: cropping
Average annual rainfall: 300 mm
Soil pH: 7.5 to 8.5
Soil type: sandy loam
Crops: wheat, barley, canola, lentils, peas

Bulga grower Ross Watson has been using full controlled-traffic farming (CTF) for six seasons in a region where very few growers have taken up this suite of practices.

"In my district I think there is a perception that CTF is very expensive, but that is not necessarily the case," Ross says.

His CTF system consists of 3m wheel-track spacings with a 12m-wide disc seeder, 12m harvester and a 36m sprayer (known as a 3:1 sprayer ratio).

"Converting to CTF cost me less than $10,000," Ross says. "I replaced my 18-metre seeder with a 12-metre one, which is something I expect a lot of Mallee growers would find a difficult concept. Most people are constantly looking to go wider, not narrower."

The long-term objective for Ross is minimal soil disturbance, leading to benefits in soil biology and a reduction in chemical use.

"I am seeing benefits in input costs," he says. "My fertiliser costs and herbicide costs are decreasing, while yields are staying the same, depending on seasonal conditions."

A third input cost benefit is a reduction in fuel consumption where machinery is run on compressed wheel-tracks, which also leads to a reduction in dust.

"Having my seeder and harvester aligned also means it is very easy for me to do crop monitoring on different practices and varieties," he says. "Because they're on the same widths I can sow a row of a different variety, for instance, and use the yield monitor on my harvester to measure the effect."

Be on alert for mice at seeding

***Source**: GRDC:With the Grain, March 2017*

Southern region growers are advised to monitor mouse activity this autumn and, if necessary, be prepared to bait at sowing in order to control the pest.

Monitoring conducted by the CSIRO in conjunction with the Invasive Animals Cooperative Research Centre has shown mouse abundance is increasing in parts of the southern region (figure 1), with significant damage expected at sowing in SA and in particular areas of Victoria.
CSIRO senior research scientist Dr Peter Brown says the bumper harvest as a result of the wet conditions in 2016 means there are plenty of resources for mice to feed on and shelter.

“Mice are continuing to breed and abundance will increase,” he says. “Growers should check for mouse activity in their own paddocks now by looking for evidence of active burrows, rather than relying on mouse chew cards which are not as effective when abundant food sources are present.”

Monitoring has found mouse numbers to be increasing in many parts of the southern region.

Dr Brown says densities of more than 200 mice per hectare will cause economic damage at sowing.
He says numbers are particularly concerning at monitoring sites at Mallala, SA, where trap success was 75 per cent, or very high, in March. Mice density estimates for this area are between 250-320 mice/ha.

Mice numbers are also increasing on the Yorke and Eyre Peninsulas, according to Dr Brown. In Victoria, numbers are increasing across all areas with moderate numbers across the Wimmera and Mallee.

“Trap success was 10 per cent in March, with density estimates of between 30-50 mice/ha and some damage possible,” Dr Brown says.

“In both SA and Victoria, growers should remain vigilant and act accordingly if damage is likely. Because of variability between paddocks, we advise growers to monitor across multiple paddocks to gauge mouse numbers and inform their management decisions.”

To get an accurate gauge on mouse numbers, growers can use the following guide:

1. Walk 30 metres in from the edge of the paddock and follow a 100-metre long by 1m wide path through the crop, following the furrows.
2. Walk slowly along the path, scanning for evidence of mouse burrows. Be sure to keep within the 1m transect width.
3. Take note of any mouse burrow that looks active.
4. Record the number of burrows per 100m path.
5. Repeat across 2-4 paths to cover a large area.
6. A mouse problem exists if there are more than 2-3 active burrows per 100m.

Growers are strongly encouraged to report and map mouse activity using the *Mouse Alert* website or smartphone app so other growers in the same area can also see what kind of mouse activity is being observed.

Dr Brown says growers intending to bait at sowing should apply directly after sowing, such as with a bait spreader on the back of a seeder. “Mice increase foraging activity after sowing because of the soil disturbance,” he says. “If a novel food is available on the surface they will eat that in preference to digging up the planted seed. “Baiting more than 24 hours after sowing will not be as effective.”

Dr Brown says if zinc phosphide bait is spread at one kilogram per hectare as per label requirements, it should reduce the mouse population by at least 95 per cent. “One grain of zinc phosphide bait should be one lethal dose,” he says. “If bait is spread according to label requirements, then there should be two to three grains per square metre, or the equivalent of 20,000-30,000 lethal doses per hectare.”

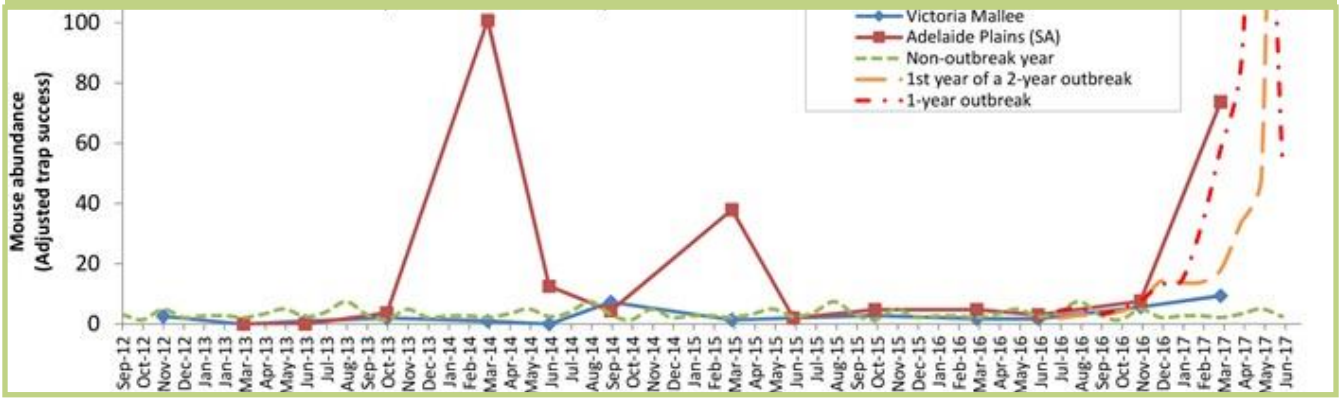
More information

Dr Peter Brown,
peter.brown@csiro.au,
02 6246 4086

Useful resources

Mouse Alert website

Figure 1: Current mouse population abundance at benchmark sites in Victoria and SA compared to outbreaks in the past.



Record mouse activity in MouseAlert

Farmers work together to predict mouse plagues.

Current advice: Keep an eye out for mice during crop sowing and growing season.

Grain growers are being encouraged to keep a close eye on mouse activity over the coming crop growing and harvesting season and regularly record their observations via MouseAlert.

MouseAlert aims at improving early warning of possible plagues to enable a rapid response to increases in mouse activity.

MouseAlert can be used to map where mice are and where they aren't, so participants can play a vital role in developing a better picture of mice distribution and numbers.

MouseAlert can be used as often as you want – for recording mouse activity, or viewing what is happening in your local area.

Please take 3 minutes to complete a MouseAlert report. Your data will help to identify the risk of mouse plagues in your region in future growing seasons.

Click here to start mapping mouse activity.

If you need any assistance, please email mousealert@feralscan.org.au

Which herbicides wash off wheat stubble?

Source: *Australian Herbicide Resistance Initiative (AHRI) - 13/04/17*

Ask any farmer how hard it is to wash the yellow trifluralin stain out of their clothes and you had better be ready for a tirade of domestic hardship! “I just throw them straight in the bin these days”, commented one irate farmer. “I would sooner try and wash off a tattoo than remove that horrible yellow stuff from my work shirts.” No wonder the urban myth tells us that trifluralin was originally developed as clothes dye.

Yaseen Khalil on the job at UWA in Perth, Western Australia

If Yaseen Khalil’s recent research is anything to go by, trifluralin would make a wonderful dye and it’s just about as hard to wash off stubble, as it is clothes. Yaseen is completing his PhD at UWA under Ken Flower and has done some fantastic research to help understand which herbicides wash off wheat residue with rainfall and which are more tightly bound.

Yaseen compared Sakura, Trifluralin and Arcade (prosulfocarb) herbicides by spraying them onto wheat stubble then trying a whole range of techniques to wash the herbicides off the residue with simulated rainfall.

He found:

- Sakura washes off easily, Arcade less so and trifluralin less so again
- 5mm of rainfall was enough to wash all Sakura off residue and into the soil
- Herbicides sprayed onto wet stubble are more tightly bound than dry stubble; and
- Rainfall intensity had little effect.

While this is good news for Sakura, this research also showed that rainfall, in general, does wash a range of the herbicides from stubble, just some more than others.

From Syria to Perth

Yaseen is originally from Syria and is currently completing his PhD at the University of Western Australia, supervised by Ken Flower in the UWA School of Agriculture and Environment. For his research, he’s tackled an area where there was previously plenty of speculation, but little hard data.Many agronomists have a gut feel for how herbicides behave when sprayed onto crop residue based on their experience. This research will tell them that their gut feel was largely right, but now there’s data to back up what they’ve seen in the field!

For this research, Yaseen placed petri dishes of soil in plastic trays and then covered them with wheat straw. This residue was then sprayed with the herbicides listed below and various amounts of simulated rainfall applied over the residue.Many of the treatments contained 4t/ha residue lying flat in the trays. As can be seen in the photo below, this represents a high level of ground cover, but some herbicide droplets can make it through to the petri dishes of soil below the stubble even in the absence of rain.

Ryegrass was later planted into the soil in these petri dishes, watered and grown as a bioassay. Ryegrass shoot length was measured to assess herbicide efficacy.

Rainfall washes off Sakura > Arcade (prosulfocarb) > Trifluralin

Yaseen’s trials contained hundreds of pots, generating vast amounts of data, so we’ll just show you the highlights. The

Common name	Active/formulation	Rate applied
Sakura	Pyroxasulfone 850 g/kg	118g/ha
Arcade	Prosulfocarb 800 g/L	2.5 L/ha
Treflan	Trifluralin 480 g/L	2 L/ha

graph below compares the three herbicides, sprayed onto 4t/ha wheat residue, then with various amounts of leaching rain applied immediately after spraying.

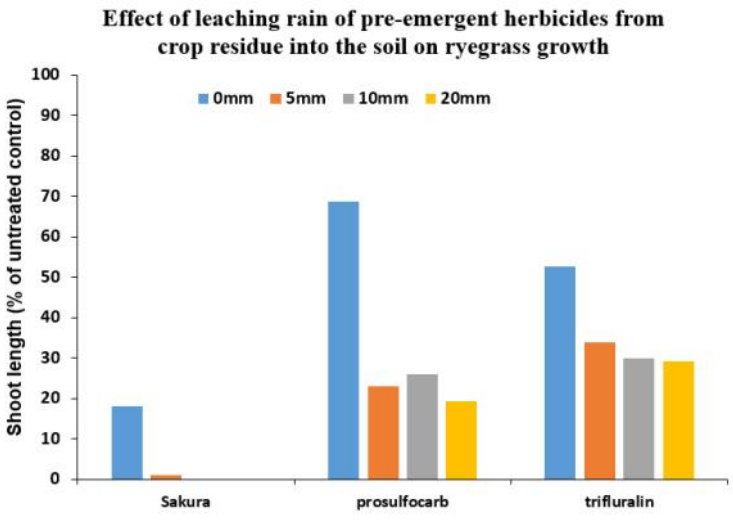
From this, it's evident that with 5mm of rain or more a large percentage of Sakura is washed from the straw into the petri dish killing all of the ryegrass that was then planted into this soil. Even where no rain was applied to the Sakura treatment, ryegrass growth was limited. This indicates that only a small amount of Sakura is required to control the ryegrass in these lab conditions.

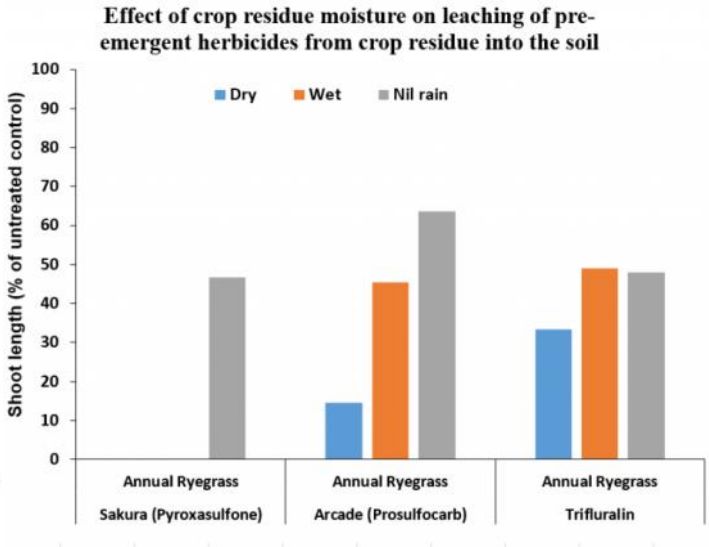
Residue which was tested in the lab

Comparing the nil rain with the other rainfall treatments it appears that perhaps 2/3 of the Arcade (prosulfocarb) and 1/3 of the trifluralin was washed from the residue with rainfall. Interestingly, rainfall above 5mm was of little additional benefit.

Wet residue binds herbicides tighter than dry residue

This is perhaps one of the more surprising results of this research.

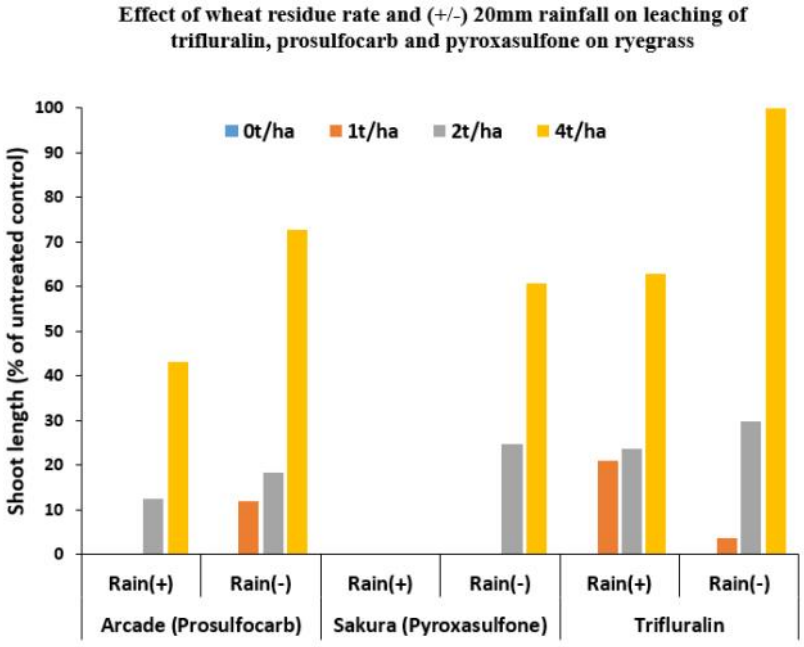




When herbicides were sprayed onto wet residue, they were bound more tightly than herbicides sprayed onto dry residue, with the exception of Sakura, which once again washed straight off the stubble with rainfall.

More residue = more binding of herbicide

As you may expect, the more residue on the ground, the more likely it is that herbicides will be bound to it. Lower levels of residue in combination with leaching rain resulted in good herbicide efficacy for all herbicides.



What about where the residue is incorporated by the seeder?

We have known for a long time that herbicides such as trifluralin are tightly bound to stubble. However, there has also been plenty of field research and observation that if this stubble with trifluralin bound to it is then incorporated into the soil by the seeding operation, it's possible to achieve good herbicide efficacy. This is certainly the case, however, most will agree that the best place for a pre-emergent herbicide is on the soil, not the stubble.

Summary

With this research, Yaseen has added hard data to an area that will help agronomists to better understand our key herbicides. The good news is that rainfall does leach herbicide from crop residue, especially herbicides with properties such as Sakura.

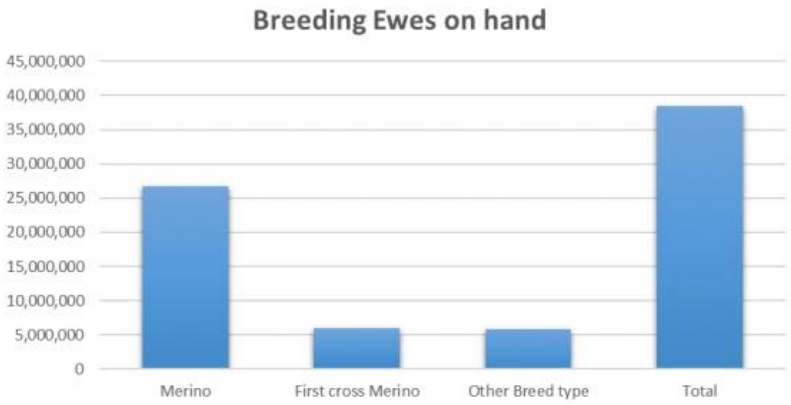
This month we examine the results for the MLA and AWI Wool and Sheepmeat Survey Report for March-June 2017 that offer a snapshot of the current flock make up and shearing over the past four months. The survey is conducted on a quarterly basis to improve the frequency and consistency of data collected, analysed and presented to woolgrowers.

Breeding ewes

Australia's breeding ewe flock is the key for the continuation of wool production, and with wool prices now at very competitive levels, they are becoming ever more important. According to the results, current breeding ewe numbers sit around 38.49 million. Of these, 26.7 million are Merino ewes, accounting for 69% of the total breeding ewe population. Within the Merino flock, 67% are set for more Merino lambs while 33% will be used for other lamb production.

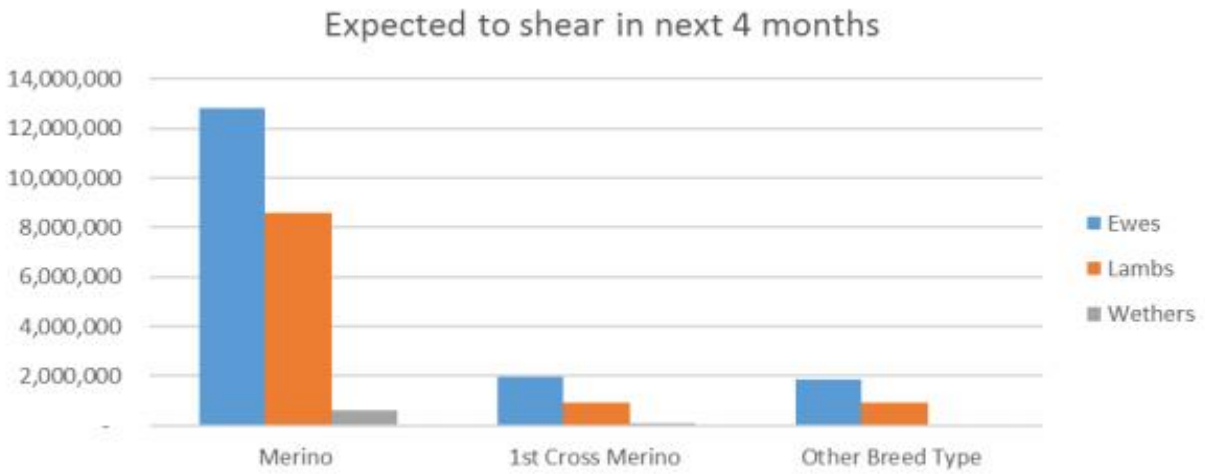
Wool production

Within the March-June quarter, 12.8 million Merino ewes are to be shorn and expected to produce around 609,204 bales. In addition to this, 10.4 million lambs are expected to be shorn, producing 104,040 bales. Proportionately, of these lambs to be shorn, Merino's make up 88% (82,008) while non-Merino lambs would account for 12% (12,484).



In addition to ewes and lambs, 8.9 million Merino wethers are recorded on hand of which around 3.5 million will be shorn in the next quarter. They are expected to produce 104,950 bales.

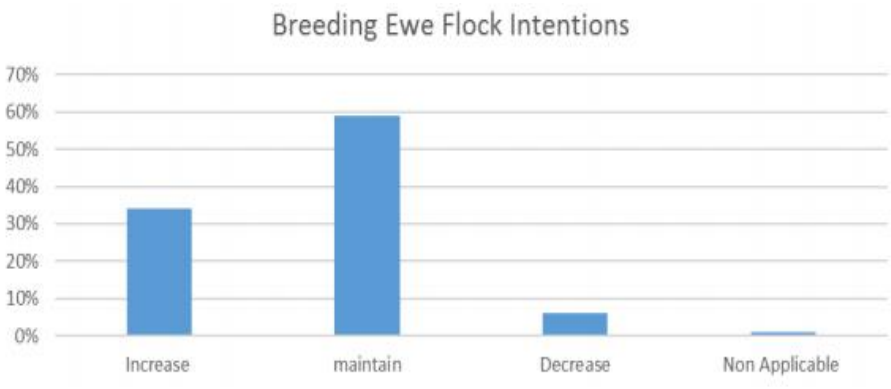
The Australian Wool Production Forecasting Committee forecasts that Australian shorn wool production will reach 339mkg greasy in the 2016/17 season. This is a 4.3% increase from the 2015/16 season and can largely be attributed the excellent seasonal conditions resulting in higher fleece weights.



Flock intentions - growers choosing to invest As 2016/17 season prices continue to be encouraging for wool and sheepmeat production, many growers are seeing real value in the future of sheep. Wool prices have been steadily climbing over the past five years and have recently entered record levels. Of those surveyed, 93% of growers indicated they would be increasing or maintaining their breeding ewe flock over the next four months, while only 6% would decrease.

Committee Chairman, Russell Pattinson said that "these excellent seasonal conditions combined with the high wool prices in the past

few months have also encouraged producers to retain older sheep to help rebuild their flocks and shearing." AWI trade consultant Scott Carmody is optimistic the current wool market can be sustained into the shorter term at least. For more commentary around the current state of the wool market and a look into the forward market for wool, listen to episode 14 of The Yarn at www.wool.com/podcast



An available resource for the increase and maintenance of ewe numbers is the successful use of the LTEM (Lifetime Ewe Management) program. LTEM enables the improvement of sheep producers' understanding of the influence ewe nutrition and management has on the performance of both ewe and her progeny. On average, graduates wean 7-10% more lambs each year and reduce overall ewe mortality.

For more information, visit https://www.wool.com/LTEM

Sources- MLA and AWI Wool and Sheepmeat Survey Report- Wool Report & Australian Wool Production Forecast Report

THE UNIVERSITY OF WESTERN AUSTRALIA

Australian Herbicide Resistance Initiative (AHRI)

Why do pre-em herbicides last so long before resistance bites?

Once in a while, someone comes along and asks a question that you have never given much consideration to. Like, "Why does beer garden beer taste so bad?" or "Why do hotels always give away piles of stuff except for what you actually need, like a toothbrush or a razor?" and "Why do our pre-emergent herbicides last longer than our post-emergent herbicides before resistance bites"?

Sure, we had probably considered this question in the past, but many of us would have just assumed that the gene frequency for resistance to our pre-emergent herbicides was low.

However, Gayle Somerville, who recently completed her PhD at AHRI, has looked at it in a different way and has come up with an alternative answer. She undertook detailed computer modelling to look at the population dynamics of annual ryegrass.

She found that pre-em herbicides are slow to evolve resistance for two main reasons:

1. It's all about numbers. Pre-em herbicides such as trifluralin are short-lived in the soil and may only be exposed to about 20% of the total ryegrass seedbank, whereas post-em herbicides are applied later in the season and may be sprayed over 40% or more of the total seed bank. The more weeds a herbicide is exposed to the higher the chance of resistance, and;

2. The post-em herbicide can protect the pre-em herbicides, like a double knock, killing any weeds that have survived the pre-em.

This will have major implications for our cropping future as we are now more reliant on pre-em herbicides and resistance to our post-em herbicides is becoming more common.

This research is hard to put into words, so click through to the website and take a look at the short videos that we have prepared that explain these concepts in simple terms.

READ MORE

Summary of Grain Markets

5th May 2017

Author: Paul Lange,
Grower Service Manager
Centre State Exports

CentreState EXPORTS PTY LTD

your South Australian partner in grain marketing

Wheat and Barley

For some time now it has been said that we need a weather scare (somewhere else in the world) to see any significant improvement in our wheat and barley prices. Finally it has happened with some significant weather events occurring in the mid-west of the U.S., with the most significant being a snow storm that has hit parts of Kansas hard in early May. There are major concerns for big parts of their winter wheat that was quickly maturing (head in boot). Other parts of the U.S. were affected by the weather event with wet conditions and flooding in some areas causing delays for the planting of corn, soybeans and spring wheat. The U.S market reacted significantly initially but the general opinion is that the reaction was as much driven by speculators short position as it was by this weather event and the potential impact on production. It is far too early to know what damage is done to the crops in this region and what further delay is to come with planting of crops yet to be planted. Our market here has seen some gains with some spikes in both old crop as well as pricing on multigrade for new crop. Although it is nice to have some positive activity it seems pretty clear we are going to need more than 1 snow storm in the world to fix our grain prices. It will be interesting to see what the USDA have to say in their next WASDE report due out 11th May.

Canola

Canola markets have gained some support with wet conditions in parts of Canada leaving their pace of planting relatively slow. The big talking point for canola here in our backyard is the significant swing of acres back into canola in many different regions. Price coupled with a good early break and subsoil moisture (for some areas) has seen quite a few acres being planted with the limiting factor being availability of seed. Demand into Europe remains strong with new crop canola holding fairly consistently above $500/t for a while now. One of the threats for Canola is if some of the areas in the U.S too wet to plant corn could switch to soybeans and plant them when it dries out, more soybean acres will potentially put pressure on soybean values that could flow onto Canola.

Pulses

Pulse markets generally have remained flat of late. Peas, chick peas and lentils have all been about the Indian crop currently being harvested. The Indians planted a big crop of pulses (as did the rest of the world). There were mixed reports during their growing season as to the condition of their crop. From the limited information available it seems their crop although significant wasn't as big as they thought. This has been reflected by the fact that peas, lentils and particularly chick pea prices have remained relatively firm for much longer than anticipated at harvest. There has been quite a bit of speculation as to what the Indian government are going to do with import tariffs and import permit requirements but to date most of it has been nothing more than speculation (although at times that speculation has come from the Indian government themselves). The mere fact this kind of thing is being reported on, is an indication that the Indian government have become more comfortable with their supply. Beans made a move early in May, however market is still flat with demand into Egypt being the limiting factor. The Egyptian economy has been in the doghouse, that coupled with alternative supply of beans from Europe has left our bean pricing at historically low levels. The small rally early in May has come from buyers looking to go to Egypt and are seeing our beans as good buying at these prices, for this reason the upside could be limited if the only reason why they are buying them is because they are cheap.

As always predicting new crop pulse markets this far from harvest is difficult. Considering the size of the crop grown last year the outlook for peas, lentils and chick peas is not too bad. There is talk countries like Canada and India will be reducing the size of their red lentil crop. The limited carryover of global chick peas stock and ongoing demand will mean that the new crop prices should be reasonable but nowhere near the lofty heights seen recently. The strength in chick peas will offer support for field peas also. Hopefully lentils can hold the more 'traditional' levels we have seen post-harvest. The unknown factor is the 'new' pulse growing regions in the world and what places like the U.S. and Russia will produce. Similar to here in Australia there are parts of the world that have only just begun growing crops like lentils and chick peas in the past couple of years and it is unclear just how much they might be able to produce. Beans are at the other end of the line, it is well known it is all about Egyptian demand. Egyptians love our beans and will pay premiums but that premium is based off of the European market. If Europe produces good quality and quantity then the upside is limited, if Europe has limited supply then this will help our market here. European beans are generally harvested from August into September.

Science for the Seeder – Links to articles of interest

1. Research article in *Conservation Letters* (in press, open access) on farmer perceptions and behaviors related to wildlife and on-farm conservation actions
2. Research article in *Environmental Management* on how local landholder groups collectively manage weeds in SE Australia
3. Discussion article on the seven science innovations that are changing conservation practice
4. New research from the University of Adelaide that has invented a machine that pulverises weed seeds as grain crops are harvested

Upcoming Events Calendar

May

13-14 Safe Chainsaw Operations Course, Quorn **Diane Cavallaro T** +61 (8) 8562 0508

June

6 Farming Together National Forum, Adelaide, Farming Together

15 LOTL FarmSafe Workshop, Mary Timms, 0428 580 583

28 EPARF Member Day – Managing Legumes, Minnipa **Dot Brace 08 8680 6202**

July

3-5 Innovation Generation Conference, Adelaide More Information Here

18 Hart Field Site Winter Walk, Sandy Kimber 0427 423 154

August

2-3 Australian Grains Industry Conference Asia, Melbourne More Information Here

10 UNFS Members Expo

September

6 MAC Annual Field Day, Minnipa Naomi Scholz 8680 6233

7 SA Durum Growers Crop Walk, Roseworthy, Ann Price 0429 962 032

12 UNFS Eastern Spring Crop Walk

11-13 State Community Landcare Conference, Clare, Glenn Gale

19 Hart Field Day, Sandy Kimber 0427 423 154

24-28 Australian Agronomy Conference, Ballarat More Information Here

26-28 Yorke Peninsula Field Days, Paskeville Elaine Bussenschutt 08 88272 040

October

17 Hart Spring Twilight Walk, **Sandy Kimber**

0427 423 154

SAVE THE DATE: LADIES ON THE LAND WORKSHOP

June 15th, Booleroo Centre

9.30 - 2.30

2 Part Workshop

AM: Replanting after the Storms. Revegetation Strategies for the Upper North

PM: FARMSAFE Workshop

Upper North Farming Systems

Contact Details

Strategic Board Members

Barry Mudge Chairman - Nelshaby
theoaks5@bigpond.com
0417 826 790

Matt McCallum Vice Chairman - Booleroo/Willowie
matthewmcag@bigpond.com
0438 895 167

Joe Koch Financial Officer - Booleroo Centre
breezyhillag@outlook.com
0428 672 161

Jim Kuerschner Board Member - Orroroo/Black Rock
jimkuerschner@bigpond.com
0427 516 038

Chris Crouch Board Member - Nelshaby
crouch_19@hotmail.com
0438848311

Ian Ellery Equipment Officer - Morchard
elleryprops@hotmail.com
0400 272 206

Matt Foulis Project Development Officer - Willowie/ Wilmington
matt@northernag.com.au
0428 515 489

Patrick Redden Extension Review Officer - Clare/Jamestown
PRedden@ruraldirections.com
0400036568

Andrew Kitto Board Member and Gladstone Hub Rep - Gladstone
ajmkkitto@bigpond.com
0409866223

Matt Nottle—Committte Member
matt.nottle@hotmail.com
0428810811

Kym Fromm - Public Officer - Non-Committee Member - Orroroo
fromms@bigpond.com
0409 495 783

Operations Committee Members

Booleroo
Tyson Christophersen
tysonchrisso7@gmail.com
0407 040 602

Industry Representatives
Michael Richards
michael.yp@bigpond.com
0427 547 052

Jamestown
Luke Clark
clarkforestview@bigpond.com
0429840564

Ladies on the Land
Jess Koch
Jessica.breezyhill@outlook.com
0419982125

Melrose
Caleb Girdham
cjgirdham01@bigpond.com
0429338841

Morchard/Orroroo/Pekina/ Black Rock
Gilmore Catford
catclub8@bigpond.com
0400865994

Wilmington
Todd Carey
tcarey37@hotmail.com
0488113591

New Farmers - vacant

Quorn - vacant

Executive Officer and Project Manager

Ruth Sommerville

Spalding - Part-time

E: unfs@outlook.com

M: 0401 042 223

Finance Officer

Mary Timms

Lucindale - Part-time

Mondays

E: accounts@unfs.com.au

M: 0428 580 583

Project Officer

Hannah Mikajlo

Jamestown - Full-time

E: projects@unfs.com.au

M: 0449 676 024

Upper North Farming Systems, PO Box 323, Jamestown, SA, 5491

Facebook: www.facebook.com/UpperNorthFarmingSystems

Twitter: @UnfsNorth

Email: unfs@outlook.com

www.unfs.com.au