

Russian wheat aphid detected in the Upper North

Crop inspections are a must, especially on any early sown cereals or areas with grass and cereal volunteers. The Russian wheat aphid was confirmed in the Upper North last week, with plants exhibiting symptoms and adult populations detected on both the east and west of the range in the UN.

The cereal crop aphid was first found in South Australia's mid-north, south of Tarlee on May 13th. It has since been found on properties across the state and into Victoria. The aphid is found in all major cereal production regions around the world but has not been previously recorded in Australia.

A national management group has declared the pest Russian wheat aphid (RWA) endemic and unlikely to be eradicated. Grain Producers Australia chairman Andrew Weidemann said now considered endemic, growers would need to work out how to manage the problem.

"Clearly identifying the pest in the first place is paramount, one of the key messages is that there are thresholds where it's economically viable to spray the pest," he said.

"It's not just if you see it you spray it, we don't want to see a massive uptake of people going out and spraying paddocks as a preventative."

The federal authority APVMA has issued an emergency use permit for the use of pirimicarb and chlorpyrifos products for control of RWA in winter cereals.

Although the aphid is considered a serious pest, it isn't yet known how it will affect crops in Australia. Authorities say parasitic wasps, ladybird beetles, lacewings, damsel bugs, hoverflies and entomopathogenic fungi all attack RWA and will determine how the pest survives in Australia.

What to look for

Russian wheat aphid is approximately 2mm long, pale yellowish green with a fine waxy coating.

Damage symptoms include a noticeable loss of green colouration across the crop, and on closer inspection, stunted plant growth and loss of vigour. Affected plants will show whitish, yellow and red leaf markings and rolling leaves.

For more information on the Russian Wheat Aphid, what to look for, its biology and impact on crops and how to manage it: [Plant Health Australia Factsheet](#) or [Pestfacts](#) . Image (Right) Plant Health Australia



Plant damage symptoms due to attack by the aphids. **Source:** Pestfacts



Wingless adult Russian wheat aphid, showing lack of siphuncles ('exhaust pipes' – circled) and presence of a 'double tail' end (cauda – arrowheads)

Light grazing of crop residues is compatible in no-tillage cropping

Source: <http://www.news.uwa.edu.au/201605188661/no-tillage-agriculture-grower-groups-research/light-grazing-crop-residues-compatible-no>

Research published by researchers at The University of Western Australia and grower groups suggests that light grazing of sheep on crop residues over summer has little impact on the following no-tillage crops.

Dr Ken Flower from UWA's School of Plant Biology and Institute of Agriculture led the study to determine if summer grazing of residue impacts the following crop yields in the no-tillage system.

Thirteen farm trial sites were used: with six in Western Australia spread across four farms at Cunderdin, Yearlaring, Meckering and Wickpin; four in northern Victoria at Banyena, Ultima, Hopetoun and Quantong; and three in southern Victoria in Inverleigh, Lake Bolac and Werneth. The results showed that light grazing of sheep on crop residues had no significant effect on the amount of residue, soil properties, soil water, weeds or yield in the following crop. The main effect of grazing was to knock down and scatter the standing crop residues.



Crop residue is seen by many farmers as a valuable livestock feed; however, soil cover provided by crop residues is a key component of conservation agriculture for maintaining favorable soil structure and high yields.

Dr Flower said this has led to the perception that no-till is incompatible with livestock grazing of residue due to the effect on soil cover and perceived problems including trampling, compaction and reduced infiltration, weed seed burial and transport and erosion.

"Most farmers still consider it important to maintain livestock for a more sustainable and diverse system, as a result of reduced economic risk and greater flexibility in weed control with the use of pastures," Dr Flower said.

"These results will give confidence to farmers to utilise stubble in their no-tillage systems."

The findings were published in the paper [*Light grazing of crop residues by sheep in a Mediterranean-type environment has little impact on following no-tillage crops*](#) in the *European Journal of Agronomy*.

The collaborating groups were WANTFA, Facey Group, Birchip Cropping Group, CSIRO, Falkiner Ag Pty Ltd, Mallee Focus and Nicon Rural Services Pty Ltd. The research was funded by the Grains Research and Development Corporation (GRDC) and the Australian Government's Caring for our Country initiative through the Grain and Graze 2 project, with assistance from the Australian Centre for International Agricultural Research (ACIAR).

Also In This Issue

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- PAPP—New bait for Wild Dogs & Foxes
- AWI—ABS Wool Data

Upper North Farming Systems' **LADIES ON THE LAND**

Agribusiness Workshop Series



Ladies on the Land formed as a hub of Upper North Farming Systems Group in 2015 to bring the women of the region together to support their involvement in the region's farming enterprises. Ladies on the Land aims to create a learning and networking environment that is open, friendly, supporting and flexible.



Ladies on the Land invites all women of the Upper North to be part of a series of workshops aimed at connecting and upskilling women of the region. The 2016-2017 workshops will cover various topics relating to farming in the Upper North including: Agronomy, Precision Agriculture, Sustainable Farming Practices, Product Marketing and Business Management. Women are encouraged to attend as many or as few workshops as they like.

The first two Agronomic workshops will be delivered by **Lameroo Agronomist, Lou Flohr**.

Workshop 1

Cereal Types & Growth Stages **9am-2pm, Tuesday 21st June**

- Cereal identification
- Zadok Growth Stage
- Identification in practice
- Afternoon out in the field studying cereal crops to apply theory from the morning.

Workshop 2

Crop Rotations

9am-2pm, Tuesday 16th August

- Rotations – role of legumes and canola
- Identification of issues in a paddock
- Afternoon out in the field, looking at any issues that may have arisen (disease, frost, pests), legume nodules, deep rotting, pest and weed ID.

Location: Morning sessions held in **Booleroo Centre at the Community Centre**, afternoon sessions held on local farms.

Children Welcome

Cost: Free

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

**For further details and RSVP – Jess Koch 0419 982 125 or
Ruth Sommerville 0401 042 223**



Australian Government

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Symptoms a poor indicator of micronutrient status

Author: Rebecca Barr *Source:* <https://grdc.com.au/GC122-MicronutrientStatus>

Growers should not rely on visible signs of micronutrient deficiencies in crops as symptoms of the most common micronutrient issues are vague and inconsistent. This is the message from South Australian Research and Development Institute farming systems leader Dr Nigel Wilhelm, who says growers should use leaf tests if they want to reliably detect micronutrient deficiencies.

“It is not a good strategy to assume that there is only a deficiency if the classic visual symptoms are observed,” he says. “Some symptoms can be confused with other common issues, sometimes they appear too late to treat, and sometimes there are just no visible signs, even if there is a severe deficiency.”

Dr Wilhelm says growers should not underestimate the value of micronutrients. For example, at a trial at Cummins on SA’s Eyre Peninsula in 2015, copper applications increased wheat yield from 0.7 tonnes per hectare to 3t/ha using early and late sulfate sprays. In the same trial, a single late spray of sulfate yielded 2t/ha.

In the Cummins trial, despite the increases in yield due to copper applications, no visible signs of deficiency were observed.

“The only reliable way to diagnose a deficiency is with a plant tissue test,” Dr Wilhelm says. “Soil tests are of little value for manganese and are, at best, only a guide for predicting zinc and copper deficiencies. Sampling young leaves at late tillering (GS30) is the best time to make a diagnosis. In most cases, growers will still have time to apply a treatment in the same season.



Dr Nigel Wilhelm inspects a young oat plant.
PHOTO: Alistair Lawson

“There is increasing concern in some districts that micronutrient deficiencies may be the next nutritional barrier to improving productivity. Improved grain yields and quality mean more nutrients are being lost in the harvested grain than ever before.”

Correction methods depend on the micronutrient to be applied and the growth stage when the deficiency is detected. Dr Wilhelm’s recommendations are as follows:

Zinc

- A foliar spray of 250 to 350 grams of zinc (Zn)/ha at GS21 to GS30 can address a zinc deficiency in that year but will not provide any benefit in future years.
- Zinc-enriched fertilisers or a pre-sowing spray of zinc onto the soil are good options for that crop and for several following years, at a rate of about 1 kilogram of Zn/ha, or 2kg Zn/ha for a severe deficiency. Soil applications provide residual benefits in subsequent years and therefore can be more cost effective in the long run.
- Fluid zinc at seeding at a rate of 1kg Zn/ha can also be successful and provide residual benefits in subsequent years.

Zinc seed dressings are effective and will supply zinc to the young crop but cannot completely overcome a severe deficiency, nor will they provide benefit in subsequent years.

Copper

- Foliar sprays of 75 to 100g/ha at GS50 can correct a Cu deficiency in the short term, and is a cheap option. An earlier spray at stem elongation (GS31) may also be necessary in severe deficiencies.

Soil applications are the best method for long-term treatment, through applying copper-enriched fertilisers or fluid application at a rate of 2kg/ha.

Manganese

- Severe deficiencies should be treated with manganese-enriched fertilisers banded with the seed (2 to 3kg manganese (Mn)/ha) or fluid application, as well as one to two follow-up sprays of 1.1kg Mn/ha from late tillering (GS30).
- Seed coatings are a cheaper option and may be used in conjunction with either enriched fertilisers and/or foliar sprays.
- No manganese applications have any residual benefits so must be repeated every year.

More information: Dr Nigel Wilhelm, 0407 185 501, nigel.wilhelm@sa.gov.au

EPIC Grower Meetings 2016



You are cordially invited to attend

EPIC's 2016 Grower Meetings

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Ardrossan July 12th @ Ardrossan Hotel 11am Lunch provided.

Redhill July 12th @ Redhill Sports Complex 5.30pm Dinner provided.

Booleroo July 13th @ Booleroo Sports Complex 8am Breakfast provided.

Napperby July 13th @ Napperby Tennis Club 5.30pm Dinner provided.

Jamestown July 7th @ Bowls Club rooms 8am Breakfast provided.

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E-mail: grain@epicbrokers.biz



Monthly Commodity Highlights:

Grains & Oilseeds: The next month may see continued speculative short covering, and subsequent volatility in grain prices.

Beef: Prices are expected to remain relatively stable for the coming months. Buying is not expected to increase until spring, cattle are in short supply and export markets are relatively stable.

Sheepmeat: With the normal seasonal contraction in slaughter there are indications that all prices will remain firm and edge towards the AUD6.00/kg mark over the coming months.

Wool: Looking forward currency is likely to remain critical for price movements. Rabobank is forecasting further depreciation of the Australian dollar. Combined with tighter wool supply, prices are likely to remain supported.

VIEW REPORT



Rabobank

Increasing Speed can Reduce Spray Coverage

Author: Bill Gordon **Source:** <https://grdc.com.au/Media-Centre/Ground-Cover-Supplements/Ground-Cover-Issue-122-Spray-application/Increasing-speed-can-reduce-coverage>

Increasing spraying speed can influence more than pressure at the nozzle. Before you put the 'pedal to the metal' it is important to understand how increasing speed can affect sprayers aerodynamically and change how droplets are produced and where they land.

Targeting the most susceptible stage in the life cycle of a pest or weed is a critical factor in achieving effective control.

Many growers prioritise the ability to get over as much country as possible with their sprayer while weeds are still fresh, grubs are small or before a fungal pathogen spreads.

However, the temptation to spray more hectares per hour by increasing spraying speed is not necessarily a valid strategy for improving the overall level of control.

When application speed is too fast for good spray deposits, it can start to erode efficacy and increase the potential for drift.

The impacts of higher spraying speeds include the following:

Increased pressure at the nozzle

The most obvious effect of changing spraying speed is on the pressure at the nozzle (the main exceptions are for spray application with manual pressure or pulse width modulation).

With conventional hydraulic nozzles, increased pressure produces smaller droplet sizes. Regardless of the system used, spraying speed can also influence how droplets behave close to the sprayer.

Increasing speed affects spray droplets at all stages from droplet formation to drop deposition on the target, including:

- at the nozzle, by increasing small droplet escape from the spray pattern;
- air movement around the sprayer (aerodynamically), which affects droplet movement close to the chassis (known as the wake effect) and adjacent to the wheels and tyres; and
- target coverage by influencing how the droplets may deposit and penetrate a canopy.



Operating at high spraying speeds with a fine spray quality can lead to excessive amounts of spray remaining in the air. **PHOTO:** Bill Campbell

1 Increased escape of small droplets from the spray pattern

Air movement affects the nozzle and can change how the spray pattern is formed and the ability of droplets to remain within the spray pattern.

When the airspeed coming into contact with the spray pattern is fast enough, it can:

- change the shape of the spray pattern, causing it to narrow and wrap backwards – this can affect the overlap of the spray patterns and the evenness of the spray deposits onto the target;
- cause a loss in downward velocity of smaller droplets, which can reduce canopy penetration; and
- lead to the escape of small droplets from the pattern (known as detrainment), which can increase drift potential.

2 Increased wake effect

Increasing spraying speed increases the amount of air displaced by the sprayer as it moves across the ground. This can be significant directly behind the sprayer, where droplets may be transported in an upward direction several metres into the air.

Continuing Story...

Small droplets can be carried upwards by the wake leading to increased drift potential and lower deposition of droplets in the centre of the sprayer, particularly between the wheels when travelling into a headwind (Figure 1, below).

The spraying speed at which the wake effect becomes significant can change for different sprayer types.

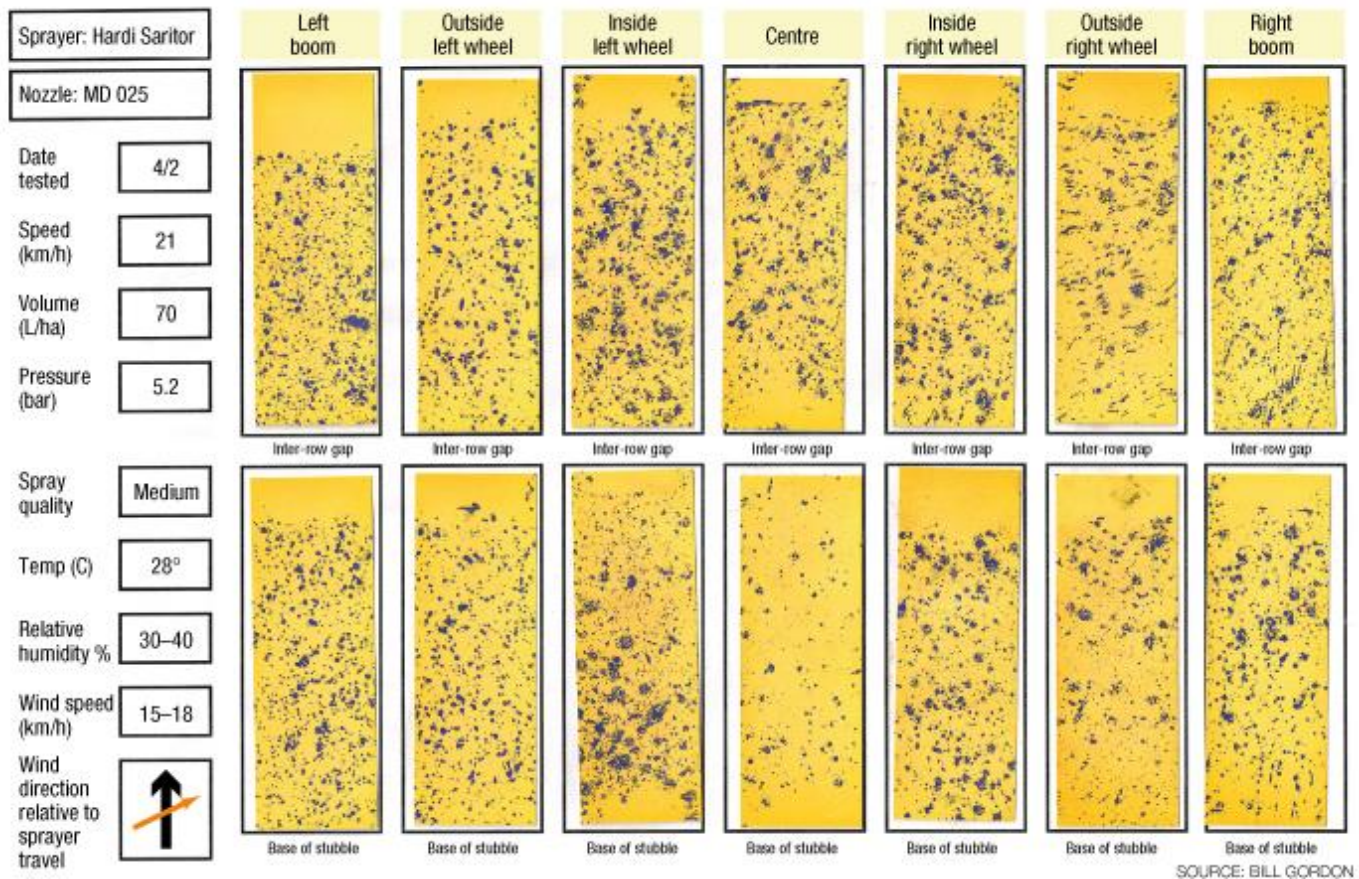


Figure 1: Placing water-sensitive paper cards in the inter-row and at the base of the standing stubble can highlight areas of poor deposition due to the wake effect. Figure 1 shows poor deposition in the centre of machine at base of stubble resulting from small droplets being transported upwards behind the machine. **SOURCE:** Bill Gordon

However, speeds of more than 15 to 16 kilometres per hour can cause this effect for most sprayers.

3 Increased displacement of spray adjacent to the wheels and tyres

The wheels and tyres on the spray rig tend to displace a lot of air. The faster the rotational speed of the tyres, and the more aggressive the lug pattern is, the more air will be displaced.

This tends to move smaller droplets away from the wheel tracks and causes lower spray deposit areas, particularly at the base of standing stubble. This air movement may also cause droplets to be drawn into the upward air movement behind the sprayer.

4 Reduced penetration into stubble and crop canopies

As droplet size increases droplets tend to hold their direction of travel. When using coarse droplets, increasing the spraying speed can increase deposition onto vertical surfaces.

Very coarse and larger spray qualities applied at higher spraying speeds can increase shadowing behind stubble, and below crop plants and larger weeds.

Increased spraying speed can reduce the penetration of spray droplets into dense canopies. This can occur at different spraying speeds for different nozzles.

Continuing Story...

Some nozzles that produce smaller droplets with low exit velocities will be affected at spraying speeds as low as 8 to 10km/h.

Spray operators can check the droplet deposition obtained around the sprayer and in crop canopies using water-sensitive paper and the [SnapCard app](#) to evaluate the impact of spraying speed and spray quality on where the droplets land.

Impacts of poor spray deposition on efficacy

Reduced spray deposition can limit the immediate level of control, but the longer-term effects of reduced efficiency are more concerning as they may lead to changes in the behaviour or biology of pests.

Insect pests such as diamondback moths have been shown to actively avoid some insecticides, so reduced penetration of sprays into crop canopies can change the behaviour of the pests, making them more difficult to control in the future.

How to spray more without increasing speed

There are several strategies that spray applicators can consider to increase the number of hectares sprayed per hour, without travelling at higher spraying speeds.

Wider booms allow the spray operator to cover more hectares per hour without increasing spraying speed.

Before increasing boom width, it is useful to consider a width that is a multiple of the header and seeder widths in order to reduce wheel tracks.

It is worth the extra expense of fitting an auto height control system to keep the boom stable and maintain boom height.

Faster filling and mixing systems can also reduce the time spent out of the paddock. One solution is to use a mixing trailer and water cart so the operator can mix close to the sprayed paddock. Increasing the number of fill points around the farm can also reduce the time spent travelling to and from water sources.

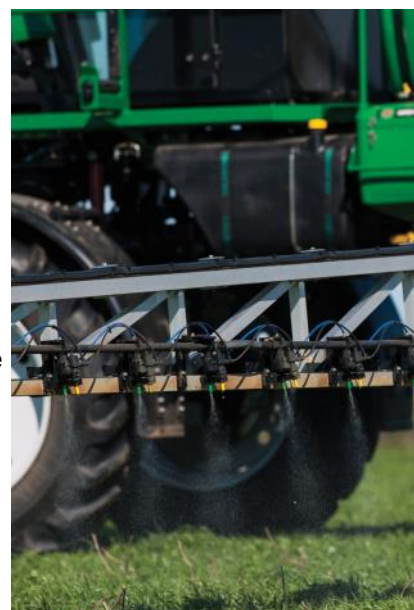


PHOTO: Brad Collis

Weed control in standing stubble

Increased spraying speed can reduce weed control in standing stubble at different locations across the boom.

In a study conducted as a part of a GRDC-funded project delivered by Bill Gordon Consulting, the effect of spraying speed, spray quality and three nozzle designs on fallow weed control was conducted in standing wheat stubble at Narrabri, New South Wales, in March 2014.

In this study a marginal rate of one litre per hectare of a 470 gram/L glyphosate product was applied in a total application volume of 50L/ha, which was designed to highlight potential differences in efficacy as a result of the treatments used. All treatments were applied using a 36-metre-wide, self-propelled sprayer.

Spraying speed: Two speeds were evaluated (20 and 27 kilometres per hour).

Nozzle type: Three 110° nozzle types at two orifice sizes (02 and 025) were used: TeeJet AIXR, TeeJet TTJ60 and the TeeJet TTI. All nozzles were operated at pressures between 3.5 and 4.0 bar to achieve 50L/ha. Spray quality was matched according to the manufacturer's charts for the two orifice sizes of each of nozzle type used for the two spraying speeds. The AIXR and TTJ60 nozzles were selected based on their coarse (C) spray quality and the TTI was selected based on its extremely coarse (XC) spray quality.

Continuing Story...

Sampling position: Assessments of weed control were made at three positions across the sprayer: in the centre of the machine, adjacent to the wheel (0.5 metres downwind) and under the boom (3m downwind from the wheel). All spraying took place with a moderate crosswind averaging 12km/h.

The results highlighted the impact the wake effect can have on weed control as a result of increased spraying speed.

TTI nozzles producing an extremely coarse spray quality resulted in a 12 per cent reduction in awnless barnyard grass control in the standing stubble compared to the AIXR and TTJ60 nozzles, producing coarse spray qualities.

At the lower spraying speed of 20km/h, there was a 10 per cent reduction in weed control 3m downwind of the sprayer wheels compared with the centre of the machine or adjacent to the wheels.

At the higher spraying speed of 27km/h there was a 9.4 per cent reduction in weed control in the centre of the machine, compared with 3m downwind of the sprayer.

These results showed that, for the sprayer used in this trial, at the lower travel speeds the wake effect had an impact on the level of control at the 3m downwind sampling position of the machine; however, as the spraying speed was increased the level of weed control was reduced in the centre of the machine.

These results correspond with other studies comparing spray deposits onto water-sensitive paper from many different sprayers, which also show that the speed at which the wake effect becomes apparent can change between manufacturers and across models.

Generally, the wake effect occurs at lower speeds with trailing rigs rather than self-propelled sprayers. The higher clearance of self-propelled sprayers appears to help minimise some of the effects up to about 20 to 22km/h, but at higher speeds even the self-propelled sprayers have trouble landing droplets in the centre of the machine.

More information:

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bill.gordon@bigpond.com



The stubble load used in this trial was typical of the Narrabri, NSW, area. The increased stubble loads that can be found in higher-rainfall zones are likely to produce significantly different results. **PHOTO:** Annabelle Guest

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THE EXPORT FACTOR:

AUSTRALIAN AG ON THE WORLD STAGE



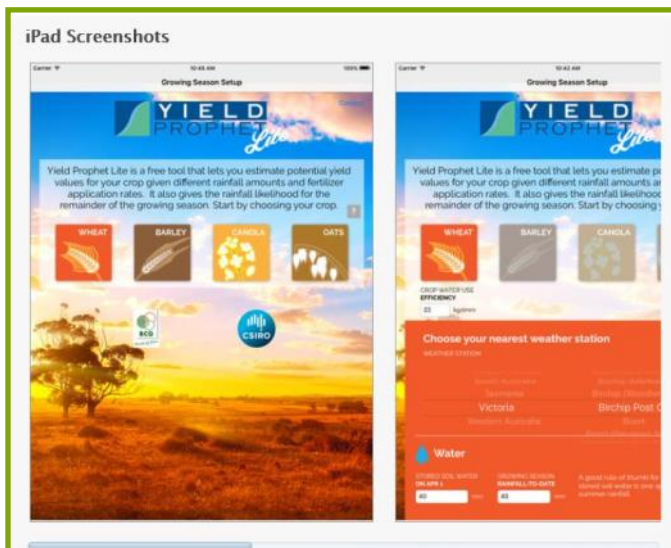
BCG releases crop forecasting app for farmers

Successful on-line crop forecasting tool Yield Prophet® now has its own app.

Launched by Birchip Cropping Group (BCG) on June 12, the Yield Prophet Lite app is a free tool that lets farmers estimate their potential crop yields based on forecast rainfall probabilities for the rest of the season.

BCG Yield Prophet co-ordinator Tim McClelland said the app, which had been developed in partnership with CSIRO, uses data from the Bureau of Meteorology's highly-regarded POAMA/ACCESS seasonal forecasting system to predict how the season might finish and likely crop yields.

"The app can be used to help farmers to work out their potential yield and how much fertiliser is needed to meet that target," he said.



Yield Prophet Lite is a free tool that lets you estimate potential yield values for your crop given different rainfall amounts and fertiliser application rates.

formula."

Yield Prophet Lite has been developed from the Yield Prophet on-line platform which has the ability to generate reports for individual paddocks detailing real-time crop progress and potential according to the moisture and nutrient status of the soil.

"Yield Prophet Lite gives growers a taste of what a full Yield Prophet subscription can offer," Mr McClelland said.

"It's a tool that backs up your gut-feel with hard data, to help you make the right business decisions."

The Yield Prophet Lite app for iPads can be downloaded from the iTunes store. Android, iPhone and PC users can use the app via the web at: <http://www.yieldprophet.com.au/yplite>.

For more information about the free Yield Prophet Lite app, or to find out how to subscribe to access the full Yield Prophet® decision-support platform phone BCG on (03) 5492 2787 or email yieldprophet@bcg.org.au.

The app can be run at any time during the growing season. All growers need to do is specify their crop type (wheat, barley, canola or oats), select the closest Bureau of Meteorology weather station, and input some quick details about rainfall, starting soil nitrogen, water and carbon, and any nitrogen applications.

The app will then calculate a range of water and nitrogen-limited yield potentials for your crop, and tell you the likelihood of different future rainfall amounts for the rest of the growing season.

"Yield Prophet Lite is quite simple to use," Mr McClelland said.

"It calculates yield potential from stored soil water, growing season rainfall, evaporation and the crop's water use efficiency, based on an updated version of the well-known French and Schultz



Hit the road to LambEx 2016 in Albury

Following the tremendous success of LambEx 2014 in Adelaide, two buses, one from Naracoorte and one from Nuriootpa, will be travelling from SA to Albury, New South Wales, on August 10-12 for LambEx 2016.

Discounted rates for LambEx registration, transport and accommodation are available as a result of generous sponsorship from Sheep Connect SA, Pinkerton Palm Hamlyn and Steen, Spence Dix and Co and the SA Sheep Industry Fund.

All registration and payments must go to Jen Taylor at Livestock SA (admin@livestocksa.org.au or 08 8297 2299).

There are limited seats available, so be quick to secure your place.

Further information on the buses is available from SA Sheep Industry Blueprint Manager Stephen Lee (Stephen.lee@adelaide.edu.au 0421 570 630).

See the SA LambEx bus flyer [here](#)

Cost

To access the prices below you must register with Livestock SA not through the LambEx website. The following options are available and the same for both buses. All costs GST inc.

Description	Cost
Farmer LambEx registration, transport and accommodation	\$600
Student LambEx registration, transport and accommodation	\$500
Service provider LambEx registration, transport & accommodation	\$780
Transport and accommodation only (if already registered for LambEx)	\$150

* add \$120 for non-twin share accommodation.
Couples are considered twin share.



Help us find our frogs!

FrogWatch SA is a new community-monitoring program that fills a gap left by previous citizen science frog survey programs.

It uses new technologies, is community driven and covers as much of South Australia as possible throughout the year. The information will build a state-wide picture about our frog species and what may be needed to help them.

The FrogSpotter mobile app and the FrogWatch SA website are the powerhouse behind FrogWatch SA. They are designed to make it easy and fun to learn about South Australia's frogs and to collect essential knowledge about them.

By taking part in frog surveys, you can help us better understand the condition of the environments frogs are dependent on in South Australia. You don't have to be an expert to contribute and there are many ways to participate.

Find out more at the [FrogWatch SA website](#) or download the [FrogSpotter mobile app](#) from the Apple iTunes store or Google Play store.



Natural Resources
Northern & Yorke



Government
of South Australia

2017 SCHOLARSHIPS

FOR AUSTRALIAN PRIMARY PRODUCERS



- ◆ The Nuffield Australia National Conference is a chance to meet other Scholars and be briefed on the overall Scholarship program.
- ◆ There is a unique opportunity to meet Nuffield Scholars from Australia, the United Kingdom, Canada, New Zealand, Ireland, Brazil, The Netherlands and France, as well as participants from other invited countries at the annual Nuffield Contemporary Scholars Conference (CSC).
- ◆ Six Global Focus Programs (GFP) offer a six/seven-week itinerary spent in various countries including New Zealand, UK, USA, China, Brazil, South Africa, Kenya, The Netherlands, Ireland, France, India, Qatar, Mexico, Singapore, Indonesia, Japan, Israel, Hong Kong, Canada, Turkey, Germany, Belgium, Poland, Czech Republic, Chile, East Africa and the Philippines, investigating agricultural marketing, trade and environmental issues, and experiencing the social and cultural aspects of each region.
- ◆ An individual study program enables Scholars to travel to countries of choice.
- ◆ Scholars will submit a written report on the individual study program after completing their tour.
- ◆ Scholars will make verbal presentations about the individual study program.
- ◆ There is financial assistance to the value of \$30,000 (subject to conditions) to cover costs associated with the pre-tour briefing, overseas study and living expenses during the study period. Costs exceeding the value of assistance must be met by Scholars.
- ◆ There is assistance through the Nuffield network to develop itineraries for individual study programs and gain access to institutions and people linked to the area of study.

Benefits

- ◆ Research a primary production topic overseas.
- ◆ Enhance knowledge, skills and techniques.
- ◆ Join the Nuffield network of 1,600 Scholars worldwide.

Key Dates

June 30, 2016 Applications for 2017 Scholarships close.

July 2016 State-based selection panels short-list applicants.

August 22–23 2016 Final selections are held in Melbourne.

September 14-18, 2016 National Conference in Adelaide, South Australia; Scholarship briefing, Awards gala dinner, two-day conference and post-conference tour to regional South Australia. March 2017 All Scholars from around the world converge in Brazil for one week for the Contemporary Scholars Conference (CSC).

March/April 2017 GFP Group one travels to New Zealand, Brazil, USA, Mexico and UK (itinerary tbc). GFP Group two travels to South Africa, Kenya, Eastern Europe, Europe and USA (itinerary tbc). GFP Group three travels to Chile, East Africa, Europe and USA (itinerary tbc).

June/July 2017 GFP Group four travels to Singapore, India, Qatar, Turkey, France and the USA (itinerary tbc). GFP Group five travels to Singapore, the Philippines, Hong Kong, China, Canada, the USA and Ireland (itinerary tbc). GFP Group six travels to Singapore, Indonesia, Japan, Israel, The Netherlands and the USA (itinerary tbc).

Eligibility

The Scholarships are open to men and women, who are:

- ◆ Between 28-40 years of age. (Nuffield understands that there may be people outside this age range who would benefit from the Scholarship experience. We encourage them to apply);

The scholarship tenure is 16 weeks over a period of two years. The longest compulsory element of the scholarship is the Global Focus Program, where Scholars are overseas for six weeks. Individual study can be completed with flexibility thereafter.

- ◆ Ordinarily a resident of Australia;
- ◆ Engaged in farming or fishing as an owner or manager or an active member of a farming business;
- ◆ Intending to remain involved in primary production in Australia.

Regard will be given to the value of the experience that the applicant should gain through his or her studies. All Scholars will be expected to resume residence in Australia after completion of their scholarship and must write a report of their studies (see Scholar's agreement). This report remains the property of Nuffield Australia and may be published at Nuffield Australia's discretion. Reports are published at the expense of Nuffield Australia and remain the property of Nuffield Australia.

2017 Scholarships Available to SA Residents Include:

- ◆ A **grain grower** in Victoria, South Australia or Tasmania (GRDC Southern Region), supported by the **Grains Research and Development Corporation**
- ◆ An **aquaculture producer** or a **wildcatch fisher** anywhere in Australia, supported by the **Fisheries Research and Development Corporation**
- ◆ A **viticulturist** or **winemaker** anywhere in Australia, supported by **Wine Australia**
- ◆ Two **rice growers** anywhere in Australia, supported by the **Rural Industries Research & Development Corporation, Rice R&D Program**
- ◆ A **chicken meat grower** or **livestock manager** anywhere in Australia, supported by **Rural Industries Research & Development Corporation, Chicken Meat Program**
- ◆ A **cotton grower** anywhere in Australia, supported by the **Cotton Research and Development Corporation and Cotton Australia**
- ◆ An **egg producer** anywhere in Australia, supported by the **Australian Egg Corporation Limited**
- ◆ A **woolgrower** anywhere in Australia, supported by **Australian Wool Innovation**
- ◆ A **cattle, sheep or goat producer** anywhere in Australia, supported by **Meat & Livestock Australia**
- ◆ A **levy paying vegetable grower** anywhere in Australia, funded by **Horticulture Innovation Australia** using the **National Vegetable Levy** and funds from the **Australian Government**
- ◆ A **levy paying banana grower** anywhere in Australia, funded by **Horticulture Innovation Australia** using the **Banana Industry Levy** and funds from the **Australian Government**
- ◆ A **levy paying apple or pear grower** anywhere in Australia, funded by **Horticulture Innovation Australia** using the **Apple and Pear Industry Levy** and **Australian Government** funds.
- ◆ A **pork producer** anywhere in Australia, supported by **Australian Pork Limited**



- ♦ A **dairy producer** anywhere in Australia, supported by **Dairy Australia**
- ♦ A **primary producer** anywhere in Australia, supported by **Rabobank**
- ♦ A **primary producer** anywhere in Australia, supported by **Westpac Agribusiness**
- ♦ A **primary producer** anywhere in Australia, supported by **Woolworths**
- ♦ A **primary producer** in South Australia, supported by **Nufarm**
- ♦ There are also three cross-industry scholarships available for **horticulturists**. In addition to **Horticulture Innovation Australia**, one is supported by the **Australian Processing Tomato Council** and two are supported by **Nuffield Australia**.

For further information contact: The CEO, Nuffield Australia Phone: 03 5480 0755 Email: enquiries@nuffield.com.au

Application forms can be downloaded and completed from the Nuffield website: www.nuffield.com.au or are available by contacting the Nuffield Australia office.



Pastoral Profit

A joint
initiative of



Pastoral Profit □ Performance is Personal 21 June 2016– 9am to 4pm—Hawker Community Sports Centre

Want to make sure you're getting the most out of your pastoral business and making the right decisions for your financial future? Then you should check out this upcoming one day Pastoral Profit workshop featuring Jill Rigney of The Right Mind International □ www.therightmind.com.au.

The workshop will help improve your communication, negotiation and personal business skills.

The workshop will focus on:

- ♦ Getting the balance between family and business right
- ♦ Separating people from the issues at hand
- ♦ Having confronting conversations while maintaining relationships
- ♦ Building multi-generational businesses
- ♦ Effective communication with employees
- ♦ Getting the best from your employees
- ♦ Managing energy and resilience



Cost: \$55 per business plus \$22 per subsequent business member - includes catering

For more information, please contact Anne Collins via email anne.collins@sa.gov.au or phone 0427 486 115.



Making More From Sheep



Farm Safety Starter Workshop

Do you know your legal obligations when it comes to workplace health and safety? Or, are you wanting to improve safety in your business but don't know where to start?

Register for a MMfS co-funded Farm Safety Starter workshop today!

Safety is an essential business management obligation for all employers from all industries. Often safety and its management is avoided or overlooked. These half day workshops will provide a user-friendly introduction into safety and how producers can make a start in their own business.

These workshops are targeted at sheep producers who are yet to set-up a safety system in their business and are wondering where to start.

Content includes:

- ◆ Safety and agriculture – common hazards on a sheep farm
- ◆ Introduction into the WHS Act - employer and employee responsibility
- ◆ Where to start
 - ⇒ Risk assessment and hazard ID
 - ⇒ Hierarchy of control
 - ⇒ Record keeping
- ◆ Safety culture

Workshops will be delivered by Claire Gutsche, Rural Directions Pty Ltd, and SafeWork SA's Workplace Support Team.

Locations:

Minlaton: 14/6/16 from 1pm – 4pm

Clare: 15/6/16 from 9am – 12 pm

Your investment: Co-funded by Making More from Sheep, this workshop is provided to sheep producers at no cost.

Catering: Tea and coffee provided

Further information: Contact Claire Gutsche, Rural Directions on 08 8841 4500

Please register by 7 June 2016 to 08 8841 4500

Making More from Sheep -
coordinated in SA by



Supporting
partners:

SafeWork SA

New Baiting Option for Wild Dog and Fox Control

Soure: AWI—Beyond the Bale, Issue 67 June 2016

An additional baiting option for reducing wild dog and fox numbers is now available to woolgrowers and other landholders across Australia. Para-aminopropiophenone (PAPP) is a new chemical (toxin) that is now being manufactured and sold in baits by Animal Control Technologies Australia Pty Ltd (ACTA) under the product names DOGABAIT for wild dog control and FOXECUTE® for fox control.

Once the bait is eaten and the PAPP is absorbed into the bloodstream, it is converted to a secondary compound that stops effective oxygen transport to the heart and brain. This occurs in wild dogs and foxes more readily than in most other animals. The affected wild dogs and foxes become lethargic and sleepy before quickly becoming unresponsive and dying. The doses of PAPP in baits have been optimised so unconsciousness generally occurs within 60 minutes of bait ingestion, and death occurs up to an hour later. Poisoned animals do not exhibit signs of pain or distress.

AWI On-farm Program Manager Ian Evans says this new control tool is the result of a major investment in R&D by AWI, the Australian government through the Invasive Animals CRC, and ACTA. “The new baits are an example of how woolgrowers’ and other industry R&D funds have been used collaboratively with a commercial provider to bring a product through to market,” he said.

Field trials of PAPP consistently demonstrated that target animal populations were reduced by more than 70 per cent under operational conditions with good baiting procedures and have the potential to control all wild dogs and foxes in the control area if programs are run thoroughly. “However, PAPP is not a silver bullet,” Mr Evans cautioned. “It is an additional control method – along with 1080 baiting, trapping, fencing and shooting – that woolgrowers have the option of choosing. The success of control also relies on a co-ordinated effort of all landholders working co-operatively with government wild dog controllers. “As with other control techniques, PAPP has its limitations but the addition of a new control tool will allow greater flexibility and strategic management of pests across a much broader range of landscapes.”

PAPP Complements 1080

Since PAPP is lethal to wild dogs and foxes, it is also highly toxic to all working and domestic dogs, depending on the dose ingested. “If a working or domestic dog eats just one wild dog bait, it will die unless treated. This means that the distribution of PAPP baits requires careful consideration. The PAPP dose in fox baits is less, meaning an average sized working dog will be less affected after eating fox bait(s) but treatment should still be sought immediately,” Mr Evans said.

“The good news is there an antidote for PAPP. The chemical methylene blue, ‘Blue Heeler’, immediately reverses the effects of PAPP poisoning, with full recovery usually occurring within one hour.” However at present, due to the need for intravenous administration, methylene blue can only be purchased and administered by a veterinarian. As PAPP acts quickly, it will be imperative to intervene as quickly as possible in an emergency. This means that it might not be possible to get the affected dog to a veterinarian quickly enough in remote areas. It is strongly recommended to use muzzles whilst working or restrain working dogs and pets if



Wild dog photographed with a night camera.
PHOTO: NSW Office of Environment and Heritage

they are near a baited area.

Native Animals and PAPP

In Australia, wild dogs, foxes and cats are the animals most susceptible to PAPP. However, PAPP is known to affect some native animals, particularly goannas, if ingested. The material used to make PAPP baits has been shown to have extremely low palatability to herbivores. Care will therefore be needed when developing control programs using the toxin. The risk to goannas can be managed by altering the timing and presentation of baits, such as baiting at cooler times when reptiles are less active. The risk of secondary poisoning is also very low, as a susceptible animal would need to eat the bait from the stomach or vomit of a poisoned animal – before the toxin degrades.

If the poison is eaten slowly then a lethal dose is not achieved. PAPP is not considered to pose a threat to the environment. It is broken down in soil and water by microorganisms, is non-toxic to earthworms and other soil-dwelling life.

Availability and Use

While DOGABAIT and FOXECUTE® PAPP baits are new products, they are a supplement to existing control options. In this context, ACTA says its supply of the products will be tailored to the needs in each state and will be sent out on a needs basis initially until demand is better known. ACTA advises to expect a day or two delay if you request baits from your merchant or local government based bait distribution point, as ACTA does not expect them to take on stocks in advance.

DOGABAIT and FOXECUTE® will be available, in pails of 10 or 50 baits for DOGABAIT and 10 or 40 baits for FOXECUTE®. They will only be available from the established suppliers to approved purchasers of 1080 baits in all states.

Legal instructions and restrictions for use are found on the approved product labels. In addition, some constraints differ between states, so local instructions must also be followed. Immediate neighbours must be notified 72 hours before PAPP baits are applied. Signs must be put up at property entrances before the start of a baiting program and remain in place until four weeks after the end of the program, or until residual baits are recovered. There are also restrictive requirements for placement of baits. They must not be placed within 150m of a dwelling, 20m of a watercourse and 5m from boundaries or roads.

More Information: www.animalcontrol.com.au www.wool.com/wilddogs www.invasiveanimals.com



The DOGABAIT bait. A feature incorporated into PAPP baits by ACTA is the inclusion of small plastic marker beads. These remain in the stomach or gut of an animal that is killed and can even be found in a long-decayed carcass. The marker beads used in PAPP baits are yellow/orange whereas those used in 1080 bait manufactured by ACTA will be red. If a dog is presented to a vet it can be made to vomit and the nature of the poison immediately determined by the colour of the beads.



www.pestsmart.org.au



Australian Government
Department of Industry and Science

Business
Cooperative Research
Centres Programme

PestSmart is supported by all
project partners including:



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AWI

MARKET INTELLIGENCE

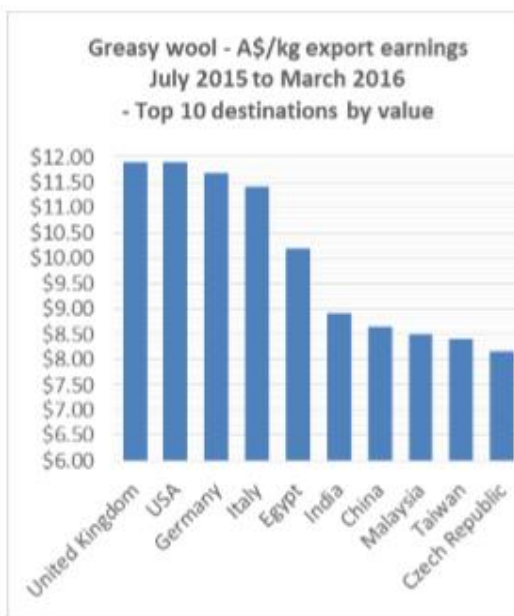
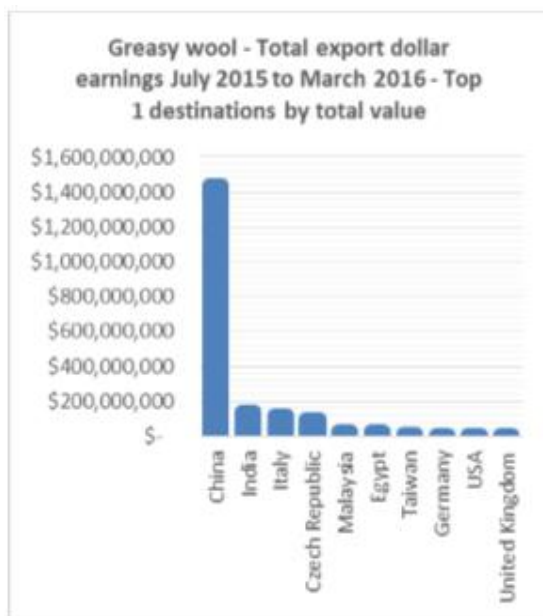
THE
WOOLMARK
COMPANY



awii
Australian
Wool Innovation
Limited

The AWI Monthly Market Intelligence Report for June examines new data available as part of the May 2016 release from the Australian Bureau of Statistics (ABS). The report highlights the declining volumes of Australian wool being exported in raw or semi processed form. For the nine months from July 2015 to March 2016, a total of 9% less raw or semi processed wool has been exported from Australia. This is a figure very much in line with industry forecasts that predict a 7% decline in production for the 2015/2016 season.

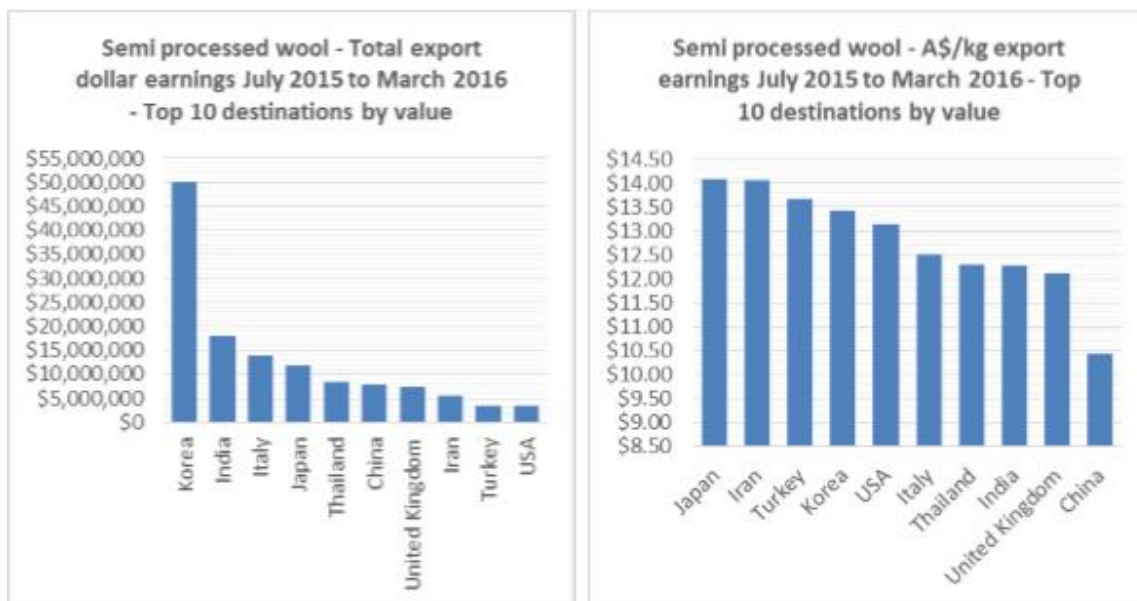
More significantly perhaps is that despite this lower export volume figure, there is an increase of 6.5% in the value of those exports. In a nutshell, Australia is exporting 9% less but receiving 6.5% more in monetary terms. During the nine month period a total of 1.884 billion dollars of greasy wool was shipped. This roughly equates to the average farm bale value of \$1,556.



The value of semi processed wool exported during the period is around \$140 million or 6.9% of the overall national wool export values. Carbonized product is the most significant of the domestic wool manufacture process and this sector accounts for 4.2% of total wool export value. Scoured wool

exports makes up for 2.7% of the overall value.

Within the top 10 export destinations, India is one of two countries that stand out in growth, with increases being recorded in both volume and export value of 6.8% and 25.5% respectively. India also consumes the largest volumes of scoured wool exported and the value of this locally manufactured product represents 0.85% of the total export earnings of wool. The rise of export volume and earnings to Egypt also became more significant, but growth into that destination is somewhat limited due to the lack of any excess manufacturing capacity.



Some key points:

- ♦ 82% of Australian wool finer than or equal to 19 microns is exported to China. Italy takes 7.3%.
- ♦ India imports more than 15% of Australian wool that is between 20 and 23 micron. This micron range is the lowest sector by percentage that China has imported at 58.7% of the volume.
- ♦ 12% of Australian crossbred wool broader than 28 micron ends up in the Czech Republic.
- ♦ New export destinations that have appeared this year, compared to last, are Singapore, Sri Lanka, The Netherlands, Morocco, Uruguay, Russian Federation, Austria and New Caledonia. Volumes and values are variable but generally very low.

Exports of Australian wool for period July 2015 to March 2016

Country	VOLUME kgs				VALUE a\$			
	YTD Total	As a %	Prev Year	% Change	YTD Total	As a %	Prev Year	% Change
China	167,430,350	74.44%	186,452,400	-10.2%	\$ 1,448,910,730	71.59%	\$ 1,358,806,460	6.6%
India	16,929,127	7.53%	15,852,387	6.8%	\$ 155,921,720	7.70%	\$ 124,288,440	25.5%
Czech Republic	11,852,052	5.27%	12,220,131	-3.0%	\$ 96,574,070	4.77%	\$ 89,578,410	7.8%
Italy	11,433,945	5.08%	11,510,761	-0.7%	\$ 131,636,060	6.50%	\$ 117,947,590	11.6%
Korea	3,796,255	1.69%	5,378,864	-29.4%	\$ 50,559,380	2.50%	\$ 56,436,470	-10.4%
Malaysia	3,705,514	1.65%	4,750,379	-22.0%	\$ 31,973,780	1.58%	\$ 49,721,330	-35.7%
Egypt	2,604,971	1.16%	2,212,618	17.7%	\$ 26,584,580	1.31%	\$ 19,954,600	33.2%
Taiwan	1,734,291	0.77%	2,205,663	-21.4%	\$ 14,747,740	0.73%	\$ 16,811,320	-12.3%
Japan	833,861	0.37%	1,034,018	-19.4%	\$ 11,732,570	0.58%	\$ 10,703,580	9.6%
USA	764,103	0.34%	933,806	-18.2%	\$ 9,413,330	0.47%	\$ 6,427,080	46.5%
Thailand	733,802	0.33%	1,378,881	-46.8%	\$ 9,201,690	0.45%	\$ 16,569,490	-44.5%
United Kingdom	728,684	0.32%	661,760	10.1%	\$ 8,581,330	0.42%	\$ 6,942,450	23.6%
Germany	707,771	0.31%	768,465	-7.9%	\$ 8,469,850	0.42%	\$ 7,564,790	12.0%
Iran	389,192	0.17%	575,000	-32.3%	\$ 5,467,720	0.27%	\$ 665,870	-17.9%
Turkey	260,017	0.12%	63,288	310.8%	\$ 3,551,270	0.18%	\$ 613,420	478.9%
All others	1,015,015	0.45%	1,208,853		\$ 10,537,820	0.52%	\$ 17,863,120	
TOTALS	224,918,951	100.00%	247,207,272	-9.0%	\$ 2,023,863,640	100.00%	\$ 1,900,894,420	6.5%

Source: ABS



SafeWork SA Changes

On 1 July 2016, SafeWork SA will split into two clear operational units – a regulator and an educator.

The educator will now include a new mobile work health and safety advisory service, providing face-to-face information, support and advice which is specific to your industry and size of your business. Of crucial importance, the mobile advisory service will not have any inspectoral powers to ensure that you feel comfortable to work with them in improving systems, practices and general approach to safety. Access to this service is free and you can book a time for an adviser to come out to your property on 1300 365 255 or safework.sa.gov.au/freeadvice.

Upcoming Events Calendar

June

15	Farmer Safety Starter Workshop, Clare, Rural Directions	8841 4500
21	LOTL –Workshop 1:Cereal Types & Growth Stages, Jess Koch	0419 982 125
21	Pastoral Profit □ Performance is Personal □ Hawker, Anne Collins	0427 486 115
22	UNFS Operations Committee Meeting	

July

19	Hart Winter Walk, Sandy Kimber	0427 423 154
22	GRDC Farm Business Update—Adelaide, Kathryn Toomey	03 5441 6176
27	EPARF Member Day, Minnipa Agricultural Centre, Dot Brace	8680 6202

August

2	GRDC Grains Research Update—Ardrossan, Matt McCarthy	03 5441 6176
4	UNFS Members Expo and AGM - Soils for a Successful Spring	
9 – 11	EP Field Days, Cleve, Renee Kelly	8628 2219
10 – 12	Lambex Conference, Albury, Donna Sykes	0412 778 849
16	LOTL –Workshop 2:Crop Rotations, Jess Koch	0419 982 125

September

7	MAC Field Day, Minnipa Agricultural Centre, Naomi Scholz	0428 540 670
13	UNFS Eastern Spring Crop Walk	
20	Hart Field Day, Sandy Kimber	0427 423 154
21-23	National Landcare Conference, Melbourne, Landcare Australia	

October

18	Hart Spring Twilight Walk, Sandy Kimber	0427 423 154
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Upper North Farming Systems

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New Farmers - vacant

Melrose - vacant

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