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In this edition:

Variety Trial News	1
Rabobank	2
Murray Nankivell	3
Synergy Seeds Update	3
AFIA News	4
Naracoorte Seeds Update	5
PIRSA Ag Tech Survey	5
Dairy Australia	6
Securing Pollination	7
Barenbrug Update	8
Agronomy Report	9
Tatiara Seeds	9
Seed Wasp Project	10
Pope Packaging	11
Safe Ag Systems	12
Teague Figures	13
Members/ Sponsors	14
Tour de' Seeder	15
Executives	16

AgriFutures Pasture Seeds

Lucerne Variety Trial Update

Assess optimum plant stress levels for seed production

The trial continues to look good coming into it's fourth spring. Winter cleaning has been undertaken and a herbage cut will be taken on the seed plots in September.

The results from the third year seed harvest were to be presented at the LA Information Session in July which was unfortunately cancelled due to the SA COVID lockdown. A copy of the 3rd year results has been provided to all members via email and the results will now be presented at the AGM on 20th October .

Seed varieties have been supplied by: Alforex Seeds, Barenbrug Naracoorte Seeds, PGG Wrightson Seeds, Seed Force, S & W Seed Co and Upper Murray Seeds.

More details on the trial, link to the moisture probe data and photos are available on the Lucerne Australia website.

Editorial

August, 2021

by Wes Lefroy, Rabobank senior agricultural analyst

Will an 'early-buying' strategy for farm inputs linger into 2022?

Australian farmers have had valid reason to swap buying patterns from 'just in time' to 'just in case' when it comes to farm inputs, such as fertiliser and agrochemicals according to Rabobank agricultural analyst Wes Lefroy.

This is not only to ensure product availability when needed most, he says, but also to mitigate against the exponential growth in prices we have seen across farm inputs in 2021.

"Both fertiliser and agrochemical markets have felt the effects," he says. "Year-to-date urea imports to the end of April were up 59 per cent on the prior year, while agrochemical company Nufarm has reported early demand for product has likely quite heavily skewed earnings towards the first half of their reporting year.

"Meanwhile inflated ocean-freight costs are adding as much as 10 per cent cost to a landed tonne of fertiliser, with procurement times also blowing out."

Although necessary during 2021, Mr Lefroy says this early-buying strategy can come at a cost.

"In some cases, farmers and companies have required extra infrastructure to store inventory," he says.

"Cash flow may also be impacted, if inputs need to be paid for earlier than usual. And the longer inputs are stored, especially fertilisers, the higher the chance of quality being impacted by weather.

As we, hopefully, near the end of Covid-19-related disruption in supply chains, Mr Lefroy asks if farmers need to maintain early input buying for 2022.

"Let's come at this from two angles – first price and second, surety of supply," he says.

"Rabobank considers it unlikely we will see major price relief for fertilisers until at least the end of Q1 2022, with strong commodity pricing continuing to support demand for fertilisers, and therefore global prices.

"We expect CBOT wheat, corn and soybean prices will all come off marginally by Q1 2022 – by -3.5 per cent, -16 per cent and -12 per cent, respectively. However these levels are still a long way ahead of what we saw in 2019 and most of 2020."
From a farmer's perspective, Mr Lefroy says the impact of high phosphate prices isn't confined to fertiliser – with phosphate also a raw material in glyphosate.

"Prices of Chinese glyphosate – the source of 65 per cent of global, and a large chunk of Australian, supplies – have increased 75 per cent this year," he says.
"Similarly to fertilisers, we expect glyphosate prices to marginally ease during H2 this year, due to increased plant utilisation across coming months, and a slight easing in the price of phosphate.

"Unfortunately, we don't see dry bulk and container freight dynamics improving before year end, which means higher prices and greater downside risk."

Mr Lefroy says with growth of new dry bulk-shipping capacity at a record low, demand for commodities is driving competition for shipping space.

"According to maritime transport company Pacific Basin, the quantity of grain shipped in the first quarter of 2021 increased by 16.8 per cent year-on-year," he says.

"Demand for containers is also at a record high, with shipping container turnover slow, and heavy congestion at ports leading to higher freight costs."

Additionally, we see further downside risks mounting, he says.

"The Winter Olympics in Beijing in February may bring tighter restrictions on Chinese fertiliser and agrochemical production, to address smog issues," he says.

"In our view, this all adds weight to farmers looking again to a 'just in case' strategy for input purchases for the 2022 season, and commencing conversations with their suppliers sooner rather than later."

To find out more about other Rabobank research, contact Rabobank Mount Gambier on 08 8726 2500 or subscribe to *RaboResearch Food & Agribusiness Australia & New Zealand* on your podcast app

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Synergy Seeds Update

By Craig Myall, Managing Director

Demand for Australian Lucerne continued to be strong over the previous period since our last report. In the months April-July 2021, 1,857mt made its way to Saudi Arabia equating to 47% of all Lucerne exports for that 4-month period, whilst the USA was the second largest destination importing 902mt (23%) and South Africa a distant third with 283mt (7%), meaning these three countries represented 77% of all exports.

Grower pricing continued to be historically strong during this period, however this has flattened out in the last 4-6 weeks, mostly due to the lack of stock available now at grower level, but also due to the massive increases in shipping costs faced by exporting seed companies. Major routes of Australian Lucerne seed have at least doubled in the last quarter, some tripling, with no sign of this slowing down in the near future. Not only are costs significantly increasing, but vessel spaces are very hard to come by, and lengthy delays for arrival at destination are often being experienced due to transhipment or the rolling of departure dates.

It is expected that the overall surface area of Lucerne for seed production will increase from 2021 to 2022, by how much is still a large unknown, but as the carryover of seed will be extremely low going into the upcoming harvest, it is still expected that prices will remain firm. Couple this with an average overall US harvest and the signs are positive looking forward.

It will again be critical for growers to focus on paddock hygiene in order to limit weed seeds at harvest time in order to optimize seed yields and importantly the marketability of their seed lines in 2022.

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Facebook: Synergy Seeds Australia

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Synergy Seeds are an independently owned seed company, supplying both proprietary and public seed to customers here in Australia and around the world. Contact us today to enquire about the products and services we provide.

Fodder Forum Series

Every Thursday in September - from 7pm AEST

Throughout September, the Australian Fodder Industry Association (AFIA) will host a series of five online fodder forums.

The aim of these events is to reconnect with AFIA members, engage with non-members and the broader supply chain, and importantly, provide an opportunity to discuss key issues impacting the fodder industry.

The events will be held on Thursday evenings commencing at 7pm (AEST).

Be entertained for 100 minutes with plenty of opportunities to ask questions and be involved.

Each event is based around a theme, with the fifth and final event also incorporating AFIA's 2021 Annual General Meeting (AGM).
In addition, each event will include a sponsor address and two "our place" presentations from geographically dispersed AFIA members.

Register today – www.afia.org.au/events/

Date	Theme	Partner Update	Featuring
Thursday 02 Sept	Not negotiable - safety!	Krone	Safe Ag System - Kirby Richmond Davis Regional Updates - Garry Burton NSW & Cameron Angel QLD
Thursday 09 Sept	3D Futures - opportunities for ag	Entegra	3D Futures - Steven Camilleri SPEE3D (Darwin) Regional Updates - Marcus Laing TAS & Corbin Schuster SA
Thursday 16 Sept	R&D update - what's in the pipeline?	Kuhn	The new Oat Breeding program - Alan Rattey National Hay Agronomy Program - Kylie Chambers Regional Updates - Richard Rose WA & Stuart Schifferle NSW
Thursday 23 Sept	Automation	New Holland	Regional Update - Wayne Bowden VIC
Thursday 30 Sept	Forecasting Fodder's Future	The sponsor and member updates will be replaced by a panel discussion and the 2021 AFIA AGM	

AFIA
Australian Fodder Industry Association

| Phone: 03 9670 0523 | Email: info@afia.org.au |

Naracoorte Seeds Update

By Joshua Rasheed, Public Lucerne Seed Trader

Another good quarter for public Lucerne seed sales has now seen our carry-over stocks at record lows for this time of year.

There wasn't a huge amount of public lucerne seed left to sell coming into this quarter and 3 months on cupboards are nearly bare. Uncertified seed is basically sold out other than small amounts held for domestic markets and certified seed isn't far away either with only small amounts of Siriver, Sequel & Aurora left.

If we look at the export sales up to end of July 2021 there has been over 4,700 tonnes move offshore with July having the biggest month with nearly 1,900 tonne shipped, which is the biggest single month for nearly 5 years. I would also expect August and September will show some healthy numbers also. Of the 4,700+ tonnes shipped Saudi Arabia is again our strongest customer with 40% of Lucerne sent to them, followed by strong sales to the USA and South Africa.

From my time in the Lucerne seed industry this would be one of the first times I have seen public Lucerne seed stocks this low at the start of September.

If you would like to know more about any of the above or have public Lucerne seed to sell, please feel free to give me a call to discuss on 0427 790 655 or email josh@naracoorteseeds.com.au

Naracoorte Seeds Research Farm Field Day 2021

Naracoorte Seeds are holding their highly anticipated bi-annual field day on **Thursday 28th October**, showcasing over 50 varieties of pasture seed in a range of trials & demonstrations. Some of the trial range include:

Pasture seed matrix - With 5 different legumes crossed with 8 different perennial grasses, what works best in our environment, and which species compliment each other?

Replicated plots - See, feel and compare benchmark and new varieties of annual, italian and hybrid ryegrass, as well as a range of perennial grasses.

Forage oat demonstration – A demonstration of 4 x 1ha plots, measured prior to grazing and then locked up for silage. Which forage oat variety will provide the most value?

Perennial pasture herbicide demonstration – Castec Rural Supplies in conjunction with Nufarm have tested different herbicides at different timings over a mixed perennial pasture, including chicory, medic and sub clover. Which chemistry is most effective and when should they be applied to ensure minimal crop damage.

We will be kicking the day off at 1pm with a BBQ and drinks provided at the end of the day. RSVP by Friday 22nd October to admin@naracoorteseeds.com.au or let me know. Joshua Rasheed – Ph: 0427 790 655

Help unlock AgTech potential in South Australia

Calling everyone involved in primary industries, research, or agricultural technologies.

https://www.surveymonkey.com/r/C72K5VQ

Help us to increase the uptake of AgTech on South Australian farms and, in turn, the productivity and profitability of our primary industries.

The 2021 AgTech survey aims to provide an updated summary of the opportunities and obstacles to the uptake of AgTech in this state. This year's survey builds on the results of last year, which contributed to the state's first AgTech Strategic Plan.

Your feedback will help us to take the most appropriate actions to remove barriers and accelerate the adoption of AgTech in SA.

Survey closes on Thursday 23 September 2021.

By Sofia Omstedt

September 2021

Commodity prices dip but underlying demand remains intact

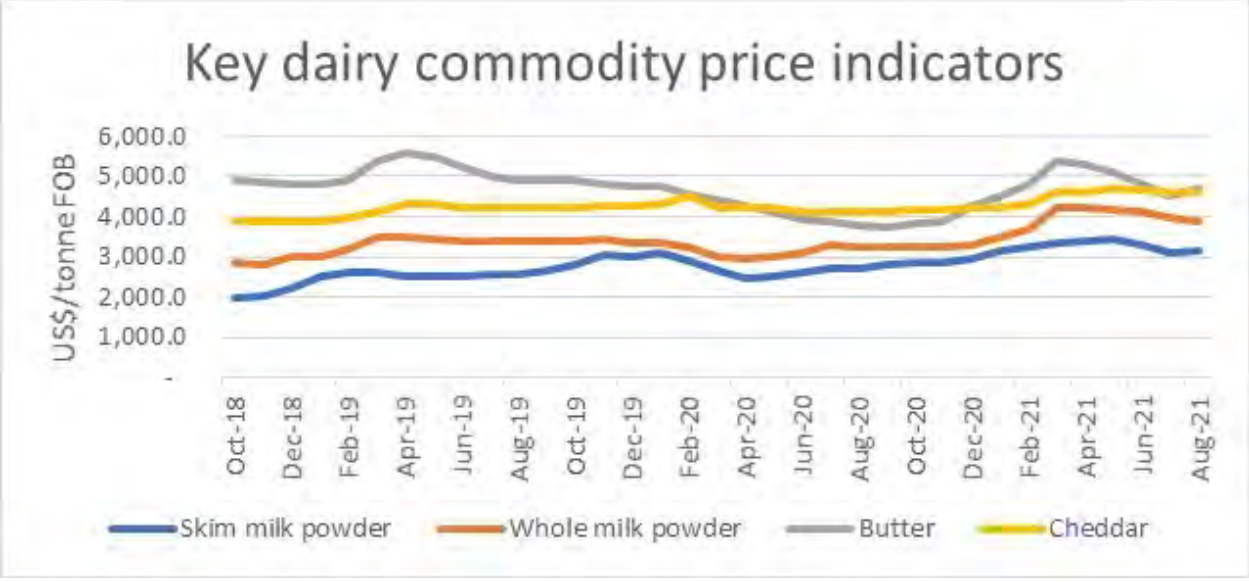
What goes up must come down – a saying that is just as true in the laws of physics, as it is in the world of dairy. Following months of surging dairy commodity values, prices have started to trend downwards, with the GlobalDairyTrade (GDT) index falling during winter. This slide has been observed across many commodity groups, despite a decrease in product availability on the platform. As the spring flush approaches this begs the question: is this merely a price correction from earlier in the season or have market fundamentals turned?

Throughout 2021, milk supply from the major exporting regions has been expanding at a slow but steady pace. The United States (US) and New Zealand (NZ) remain the key contributors to this growth, despite mounting feed costs in the US. To combat these price hikes, the US government has launched a new subsidy scheme; with this backing, milk output is set to increase 2.2% this year. NZ produced another record amount of milk last season; improved soil moisture across the North Island further sustained this momentum, with milk intakes lifting 6.6% this July (on a tonnage basis). Forecasts suggest additional growth ahead, as increases in per-cow yield are expected to boost volumes in NZ in spite of 'peak cow' being achieved. In contrast, hot weather in Europe has seen production falter during the summer months. This has helped keep global supply in check, with growth rates tracking close to previous projections.

Global demand on the other hand has been put to the test in recent months, as the COVID-19 delta variant spread across the world. Whilst a mid-year market lull is common, this year's was exacerbated by new lockdowns implemented in key regions, for example in parts of southeast Asia and some provinces in China. This saw commodity values for most dairy products trend downwards; however, this price slide now seems to be stabilising. Overall, dairy demand has successfully managed to navigate this bumpy ride, seeing purchasing interest pick up again, especially in southeast Asia and the Middle East/North Africa (MENA) region. Despite new lockdowns, global demand looks fairly well supported, in fact, commodity prices for most products remain above the five-year average.

As dairy demand moves back into a growth phase, freight challenges are becoming increasingly prominent as ocean congestion worsens. Extended delays, bottlenecks, surging exporting costs and ships bypassing scheduled ports altogether are now a standard feature of international trade. With new lockdowns and temporary terminal closures, this is projected to remain a challenge for anyone exporting (or importing) products for the foreseeable future.

Global supply is expected to continue its current growth trajectory, and as such, ongoing demand will be paramount to absorb the additional milk produced. As the value of most Australian dairy products remain above last year's levels, the recent weakness would appear to be more of a correction than a genuine price downturn. In addition, a weaker Australian dollar has also helped to insulate net returns this winter. Nonetheless, with COVID-19 cases rising, more lockdowns imposed and supply growth ticking along, surging commodity value may be a thing of the past and increased volatility here to stay.



How landscape can influence lucerne productivity

The landscape surrounding lucerne crops can significantly impact the presence of pollinating insects and ultimately crop productivity, according to ground breaking new Australian research.

The project, *Securing Pollination for more Productive Agriculture: Guidelines for effective pollinator management and stakeholder adoption*, was delivered as part of the Australian Government Department of Agriculture, Water and the Environment Rural R&D for Profit program.

It saw collaboration between Australia's most knowledgeable bee and pollination researchers from the University of Adelaide (UoA), Australian National University (ANU), University of New England (UNE) and University of Sydney (USYD), from June 2016 to February 2021.

Researchers assessed the contribution of pollinators to nine Australian crops including lucerne, to allow growers to implement evidence-based management strategies to support crop pollinators.

Key findings

Researchers studied pollinators in lucerne crops in south east South Australia and investigated the importance of the presence of woody vegetation in the surrounding landscape for lucerne set.

They found the landscape surrounding a lucerne crop influences the presence of feral honey bees and native pollinators, and this translates to increased productivity.
Dr Katja Hogendoorn, lead researcher at UoA, said paddock trees and native vegetation at the edge of the paddock increased the abundance and diversity of native visitors to lucerne crops.

"Lucerne set was 5-8% higher in the presence than in the absence of native vegetation in close proximity," Dr Hogendoorn said. "Feral honey bees play a major role in crop pollination, particularly in dryland lucerne. However, in less forested areas, their densities are not high enough to provide all the pollination required, because, in addition to nectar and pollen, their presence depends on the availability of nesting hollows and water."

Who is visiting your lucerne crops?

Researchers found honey bees made up more than 90% of the insects visiting lucerne flowers. A total of 11 species of native bees visited lucerne flowers in study fields in south east South Australia, and nine additional species visited flowers in the neighbouring vegetation. Captured bees were largely solitary, or primitively eusocial, ground-nesting species of the halictids bee genus *Lasioglossum*, or furrow bees.

The two most abundant species, *Lasioglossum (Chilalictus) lanarium* and *L. (C.) chapmani*, are ground-nesting species that can nest in irrigation banking, which is within close proximity to the crop.

Larger species such as the blue-banded bee *Amegilla chlorocyanea* and a leafcutter bee, *Megachile obtusa* (Megachilidae) were also present, but collected in smaller numbers. Native wasps, including the pest lucerne seed wasp *Bruchophagus roddi*, were the next most abundant non-Apis group after native bees.

In the past, bee species collected on lucerne have included the nomia bees *Lipotriches australica*, and *L. flavoviridis*, and the leafcutter bees *Megachile quinquelineata*, and *M. nigrovittata*. While European honey bees are the most abundant crop visitor, on an individual basis, they need to be placed in relatively high densities, as they can learn to side-work the flower, that is, harvest nectar without tripping the flower.

By comparison, native bees can be very efficient lucerne pollinators. For example, a single female of the native species *Lipotriches flavoviridis* has been found to be 30 times more efficient at tripping lucerne flowers than the average honey bee.

Dr Hogendoorn said research results suggest that feral colonies and native species found in and around Australian lucerne fields provide a substantial service to the production of lucerne seed. "This is illustrated by an enquiry done by Lucerne Australia, which shows that 30% of dryland lucerne seed producers do not add managed hives to their crop. This implies that they rely almost entirely on native bees and feral honey bee colonies for pollination", she said.

Landscape and bee visitation

Dr Hogendoorn says that the native vegetation supports free pollination by providing the pollinators with nesting opportunities and food when the lucerne is not flowering. "Feral honey bees rely on nesting hollows in old Eucalypt trees, and the densities of such colonies can be very high in fields with old paddock trees", she said.

"The presence of vegetation influences the abundance and diversity of native bees and other insects on the crop, with both of these higher in fields that contained paddock trees, than in fields that had no trees or an edge of native vegetation," Dr Hogendoorn said.

"Furthermore, close to an edge of native vegetation, the pod set was 8% higher than in the middle of the field, and the effect of the edge on set could be measured up to 200 m from the edge."

How landscape can influence lucerne productivity

Continued.

Soil nesting bees

Among the soil nesting bees, the furrow bees (*Lasioglossum (Chilalictus)*), were the most abundant in the majority of crops. These species are generalists that nest in open soil or areas with low vegetation cover. They do not nest in paddocks that are intensively grazed by sheep or cows, in lawns or in areas that are regularly flooded.

Blue-banded bees like to nest in cliffs and washouts, preferring soft, fine, sandy vertical substrate, that faces east-north-east. However, they can also nest in the soil. This knowledge can give lucerne growers an opportunity to stimulate these beautiful and useful bees in their crop, for example by finding and protecting existing nesting sites, or by building a blue-banded bee wall from besser blocks. The leafcutter and resin bees nest in dead branches, and can potentially be stimulated using bee hotels.

An interactive tool has been developed to run simulations on revegetating the area around your farm to support pollinators and how that affects your crop – want to learn more? Head to https://pollin8.org.au/

This project is supported by funding from the Australian Government Department of Agriculture, Water Resources and the Environment as part of its Rural R&D for Profit program.

Project partners include Horticulture Innovation Australia, University of Sydney, University of Adelaide, University of New England, Adelaide and Mount Lofty Ranges Natural Resources Management Board, Almond Board of Australia, Apple and Pear Growers Association (SA), Australian Mango Industry Association, Australian Melon Association, Australian National University, Costa Group, Department of Environment Water and Natural Resources SA, Greening Australia, Lucerne Australia, Native Vegetation Council Natural Resources Northern and Yorke, O'Connor NRM, Primary Industries and Resources SA, Raspberries and Blackberries Australia, South Australian Apiarist Association, Terrestrial Ecosystems Research Network Eco-informatics, Trees For Life.

Barenbrug Australia Report

By Daryl Turner, Southern Production Manager

Domestic Lucerne Market

Favourable conditions in most key lucerne growing areas has again seen solid demand for lucerne seed in preparation for spring sowing. Winter active varieties are mostly sought after with high winter active varieties being preferred by some specialist hay producers. There are some growers however that are taking a more cautious approach preferring to retain older pastures for another year rather than investing in a new lucerne stand. This is mainly due to relatively low livestock numbers with many producers focusing their investment on increasing stock numbers over improving pastures. Looking forward we anticipate a strong demand for lucerne seed in Autumn 2022.

International Lucerne Market

USA harvest is all but complete and while there were initial concerns regarding weather damage prior to harvest it currently appears the overall harvest yields are near long term historical averages. Overall production areas are still down on average, but enough seed has been harvested to meet immediate market demands. While it's likely the USA crop will have a sell-out position it's unclear if this will happen prior to our next harvest.

Overall, markets are still positive, but demand has eased in some regions due to current pricing levels in combination with upcoming harvest and a clear focus on product ex USA given lack of overall supply from Australia.

Seed Production Update

Early planning and management of your paddock rotations should be front of mind as we head into spring. It is the ideal time to inspect your proposed lucerne seed areas and identify problem pests, weeds and diseases. By now feed is starting to bulk up and providing the best opportunity to clean up and prepare paddocks without affecting your stock. Also be mindful of plantback intervals if you are using broadleaf chemicals. Take the time to check you have the appropriate amount to time out of lucerne to meet the certification requirements.

If you need assistance and advice to ensure you strategy is sound and meets all requirements, please do not hesitate to call Justin. We are currently securing 2022 sowing requirements, to secure your preferred variety contact Justin on 0408 851 411.

Cox Rural

Spring Agronomy Report—2nd September

By Scott Hutchings, Senior Agronomist

Finally, spring has arrived after a late start and an extremely wet and cold winter period. Lucerne crops are growing rapidly now but failed to produce any bulk of feed until after mid- August, a few weeks later than usual.

High and consistent rainfall from mid-June has been ideal for the establishment of lucerne on sandier soils with some excellent germination but there has been the odd issue with waterlogging on heavier soil types and low-lying areas and damping off in lucerne that has not been treated with apron. Furrow wash has also caused some issues with lucerne establishment, lucerne is extremely sensitive to depth of sowing and once depth exceeds 2.5cm significant emergence issues occur. Optimally lucerne should only be sown 1 cm below the surface. The heavier the soil type the worse the problem. Cold wet soils also go hand in hand with damping off in seedling lucerne with some older varieties like Siriver being more susceptible. It is always advised that a seed dressing is applied when risk factors are high.

The usual winter pests of earthmite, lucerne flea and snails have been present but as discussed in the March newsletter Cowpea aphid have caused significant issues with sheep in the SE though out winter. Many sheep producers have incurred negative impacts particularly with lambs through photosensitisation this has resulted in some production losses. The issue seems to be subsiding now as warmer weather has increased beneficial numbers in lucerne paddocks but continue to monitor fresh lucerne, vetch and medic paddocks for cowpea aphid before introducing stock. Aphid control prior to introducing stock and waiting the appropriate grazing withholding period seems to prevent the issue, consult a vet once livestock issues occur.

It would also pay to check pasture for Pasture Loopers and cutworm as once again high numbers are being seen sporadically in paddocks in the Upper South East in pastures and control could be integrated with a Timerite spray for earthmite if required. While mentioning earthmite there is currently some resistance surveying occurring in the SE so contact Lucerne Australia if you have a control failure and we may be able to arrange for samples to be collected for resistance testing.

Winter cleaning should be well and truly completed by now and it is always a concern for me when paddocks are cleaned late. The optimal time for Lucerne cleaning is to be finished by 1st of August (including barley grass control) as often temperature begin to rise and lucerne is starting to come out of dormancy. We also start to see barley grass coming out in head by mid-August which means control measures can be less effective. There are many benefits to winter cleaning early which include:

- Smaller weeds are easier to control thus lower chemical rates can be used.
- Smaller weeds cause less shading thus we get better coverage and control.
- Most weeds are easier to control when small.
- Residual chemicals work better on smaller weeds and work better on pre emerged weeds than they do as a knockdown.
- More residual chemical hits the soil surface thus more effective control occurs.
- Less risk of herbicides causing damage (terbuthylazine and simazine can cause significant damage if applied to stands too late)
- Surviving large plants lead to resistance issues.

While I fully appreciate the need for sheep feed, staggering paddocks winter cleaning can be more effective than leaving paddocks until late. Not only does this apply to seed production paddocks it also applies to grass free paddocks for lamb production, earlier cleaning takes away competition earlier and allows the desired pasture species to optimise production.

At this stage I expect irrigated sed production area to be up slightly again based on reasonable forecast prices, high seed clearance from last harvest, slightly increased planting area & flat hay pricing. Dryland seed area will be consistent with last year unless heavy early summer rains occur which will increase opportunity production, livestock are still a competitive return at current prices.

Regards, **Scott Hutchings Ph: 0428 551 188**

AgriFutures seed wasp project update (PRJ-012189)

By Alan McKay, Daniele Giblot-Ducray, Kate Muirhead and Lamyaa Alhwash (SARDI) and James De Barro (Alpha Group Consulting)*

The AgriFutures lucerne seed wasp (LSW) project has been running for just over 12 months and is progressing well.

Test development

Quantitative DNA tests have been developed for LSW and 2 parasitoids (*Idiomacromerus perplexus* and *Pteromalus sequester*). We have a suspicion that the *Pteromalus* test is detecting a different LSW parasitoid and are investigating this by sequencing more wasps. This means we may have to develop another test to cover each of the main wasps.

We have also started developing conversion rates to express the results currently reported as DNA concentrations in the sample to as wasp equivalents per unit sample. Initial work undertaken to determine the conversions used wasps preserved in alcohol. We suspect that storage of LSW in alcohol affects the measurement of the DNA –another project found that red legged earth mites stored in alcohol had about 30 times less DNA than fresh mites. The work on LSW and parasitoids will have to be repeated using fresh wasps.

Monitoring wasp levels in soil over winter

In 2020, the DNA tests were used to monitor survival over winter of LSW and parasitoid wasps in 12 lucerne seed paddocks including 4 dryland, 3 pivot and 5 flood irrigated paddocks. Soil DNA concentrations were relatively stable during winter and then dropped to almost zero by October, probably because the wasps had hatched.

Levels of LSW and parasitoid DNA in soil varied between paddocks but levels were generally greater in flood and pivot irrigated paddocks and lowest in dryland paddocks. This work is being repeated in 2021 and results appear to be following similar trends.

Within paddock variation

During autumn 2021, the post-harvest spatial distribution of LSW and parasitoids were mapped using soil samples from in a dryland crop at Willalooka and a pivot irrigated crop at Tintinara. LSW was detected in 75% of the dryland samples and 95% of the pivot crop samples. The concentration of wasps in the windrows was 3 and 7-10 times greater than between header rows in the dryland and the pivot crops, respectively. No other spatial patterns were found in either paddock. Implications about field sampling will be considered next year.

Wasp levels in cleaning shed delivery samples

This project also ran the LSW and parasitoid tests on the delivery samples used for the dodder monitoring program. A total of 522 samples were tested, all contained LSW and *Idiomacromerus*, and 84% contained *Pteromalus* based on the current test.

DNA concentrations of each species varied between deliveries, however on average levels grew exponentially over the study period (beginning to end of harvest period), and levels of both parasitoids grew about twice the rate of LSW. There may be variation in LSW levels across the district that could be worth investigating.

Conclusions

Data obtained so far is consistent with most LSW and parasitoids surviving over winter in the later harvested crops. We suspect the wasps emerge to infest the early maturing crops where they reproduce, hatch, and move on to infest later maturing crops. If this is correct, then LSW may need to be managed at a district/industry wide level. If most surviving wasps pass through the header, then use of seed destructors on harvesters could reduce survival over winter and spread between crops. For this to work, seed shattering before harvest will need to be relatively low. This could be worth investigating.

Data obtained also supports the current advice on early crop closure and sanitation in mitigate crop damage. It is also unlikely that LSW can be eradicated, so the aim should be to minimise its impact on yield.

**The South Australian Research and Development Institute (SARDI), is the research division of the Department of Primary Industries and Regions (PIRSA)*

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Risk Assessments vs SWPs — what's the difference?

Someone recently mentioned that they didn't need to perform a risk assessment on something as they have a safe work procedure. That got us thinking – what is the difference?

The first reaction is that risk assessments are very different from safe work procedures – and they are. However, you can see how this person though that they were kind of the same thing.

So, what makes a Risk Assessment different?

Let's remind ourselves of the basic legal (and moral) obligation of any business – to keep people as safe as possible so they get to go home to their loved ones each day. And yes, that includes you. To achieve this, you need to know what can harm someone and do something about it. Risk assessments are the smart way to do this.

Risk assessment is a process, usually documented. The purpose of a risk assessment is to take the time to consider something that has the potential to cause harm (a hazard), the degree of harm that could result (risk), then find ways to eliminate the hazard or mitigate the risk.

A risk assessment provides detailed and specific information around how to control each identified risk. Each risk may have different controls, and it is important to understand what needs to happen to keep people safe. Risk assessments can be longer, depending on the format and the level of detail. A good risk assessment should go into a fair bit of detail. For example, when doing a risk assessment on machinery or tools, you should consider the likelihood of all kinds of risk including but not limited to:

- E-stops
- Entanglement
- Crushing
- Cutting or shearing
- Being struck by objects
- Contact with high pressure fluids
- Electrical
- Burns
- Slips, trips and falls
- Ergonomics
- Confined spaces

Where is a Safe Work Procedure required?

When you know the risk and implement controls, this is where a Safe Work Procedure (SWP) comes in to play. A SWP is an administrative control – very important but less effective than higher controls such as eliminating a hazard.

SWPs documents how to perform a task, and often are the result of your risk assessment. It should include PPE to be used for a task or when using that machine, as well as pre-start checks, operational safety, shut-down processes, and what risks to be aware of.

SWPs are generally much shorter documents, often with PPE images, dot points and 1-2 pages maximum. SWPs must be easy to read and follow. These are used by workers on a more regular basis.

How often should you complete a Risk Assessment compared to a Safe Work Procedure?

A risk assessment should always be completed where there's an identified risk to safety. This might be before someone starts a particular task, and for any new activity or task. A risk assessment is not a set and forget notion. They should be reviewed based on a number of contributing factors with the frequency determined by the level of risk involved. If you have introduced any changes to an activity or task, your assessment may no longer be valid. You will also need to review a risk assessment following any incidents or injuries that occur on farm.

It is required by law to provide a safe working environment for workers and contractors. Your SWPs are just one way you can do that, and it is recommended that you perform a review every 12 months to 2 years depending on contributing factors and circumstances. These factors can include process or equipment changes for certain tasks, a particular task or activity has been involved in an incident resulting in injury or a near miss, updated information has been provided by regulators, or if there is consistent non-compliance of your current SWPs.

Keep in mind these are just a few situations where you should consider reviewing and updating your SWPs. When finalised, you should implement a review process for your documentation to maintain consistency and communication: record, review and update. Having risk assessments and SWPs in your safety management system is vital. And risk assessment is now easier than ever with Safe Ag Systems free Risk Assessment tool.

This article has been written specifically for our members by Safe Ag Systems. As a member of Lucerne Australia, you can receive a 10% discount off your annual subscription. Terms and Conditions apply so please head to their website ***www.safeagsystems.com*** *or contact their team on* ***08 8490 0939****.*

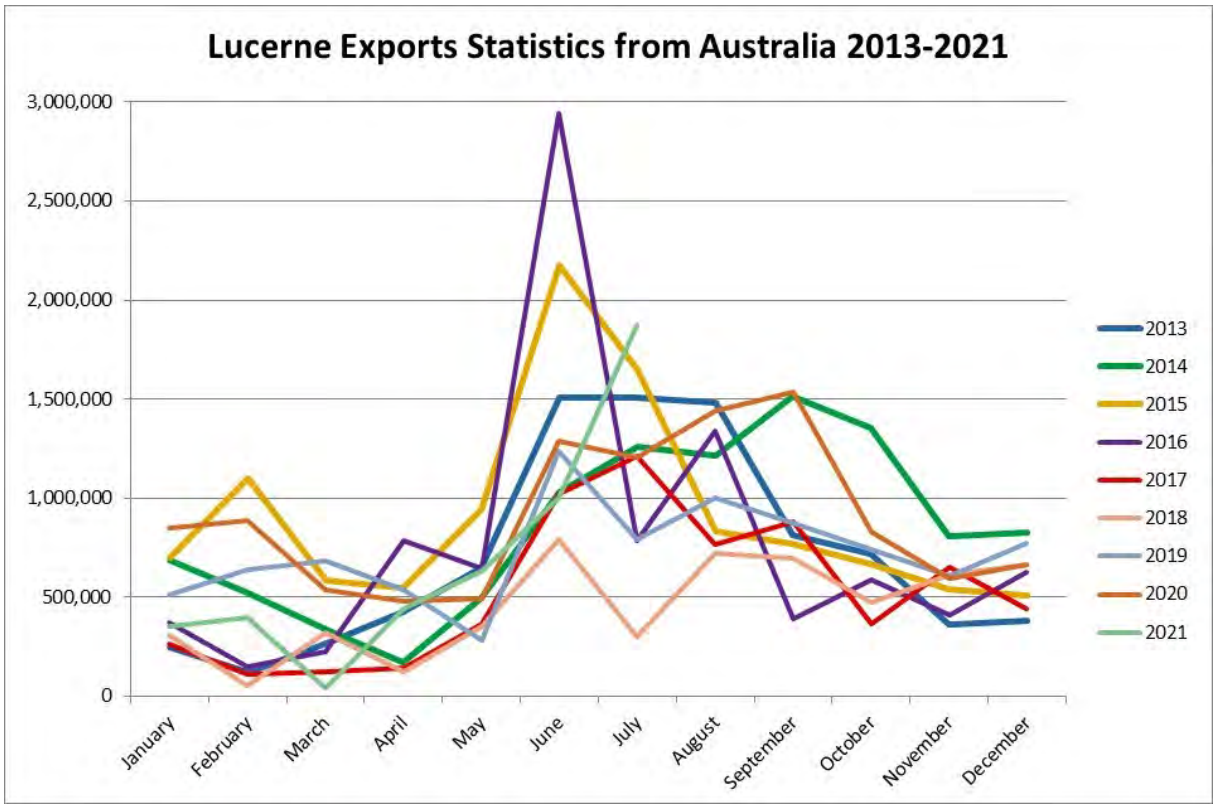
LUCERNE EXPORT STATISTICS from AUSTRALIA -January 2013 to July 2021

Courtesy of Teague Australia

Quantities below are in kg

Month	2013	2014	2015	2016	2017	2018	2019	2020	2021	Year to date Difference 2020 & 2021
Jan	245,741	687,172	698,895	374,150	266,596	307,530	512,692	850,518	352,056	-498,404
Feb	118,025	518,553	1,099,252	148,919	108,988	57,008	639,425	887,613	400,125	-985,888
Mar	269,091	334,033	582,929	227,050	127,000	321,205	684,044	539,525	44,500	-1,480,913
Apr	424,057	171,816	549,340	784,031	143,025	123,100	536,501	482,194	439,500	-1,628,182
May	647,509	495,472	940,000	644,704	363,023	355,575	281,335	495,875	633,571	-1,490,486
Jun	1,509,605	1,029,000	2,176,805	2,942,685	1,018,477	794,995	1,239,461	1,286,579	1,000,145	-1,675,420
Jul	1,510,278	1,260,782	1,649,080	786,450	1,214,352	303,288	792,380	1,205,927	1,875,361	-975,954
Aug	1,482,357	1,217,121	834,178	1,339,684	767,256	721,730	1,002,472	1,443,626		
Sep	811,667	1,516,965	770,857	388,207	882,195	698,665	871,762	1,533,097		
Oct	719,882	1,356,922	667,503	588,199	364,673	472,480	738,090	832, 925		
Nov	363,877	810,704	543,246	409,700	649,318	615,285	609,028	595, 095		
Dec	379,122	829,293	511,127	623,560	443,729	664,134	775,684	667, 771		
Total	**8,481,211**	**10,227,833**	**11,023,212**	**9,257,339**	**6,348,911**	**5,434,995**	**8,682,874**	**10,661,226**		

This summary was produced using data supplied by the Australian Bureau of Statistics.



We thank Teague Australia, an associate member of Lucerne Australia, for supplying these figures.

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Thankyou to the growers who hosted Lucerne Australia on Tour de' Seeder in June and to Executive member, Simon Allen, for co-ordinating the tour stops.

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DO YOU KNOW THE EXECUTIVE COMMITTEE MEMBERS

Got a question for Lucerne Australia? Contact the Executive Officer or any our Executive Committee Members who will be happy to help.

Josh Rasheed, Chairman
Joshua started with Naracoorte Seeds in 2011 and has since become a part owner/director of Naracoorte Seeds. Originally employed as the Contract Cropping Manager gave Josh a solid grounding in pasture seed production, including Lucerne, and he has now moved into his current role of Lucerne Seed Trading and Pasture Advisory. Josh has always enjoyed getting out working with clients and looks forward to working in the lucerne industry for years to come. Josh lives in Naracoorte with his wife Emma and three daughters but prior to this move he worked as a Real Estate Agent for 12 years at the family Real Estate business in Meningie. Contact: 0427 790 655

Scott Hutchings, Deputy Chairman
Scott is a senior agronomist with Cox Rural Keith and has worked in the upper south east for 21 years covering pulses, oilseeds and cereals and lucerne for seed, hay and pasture. Scott holds a bachelor of Agricultural Science from Roseworthy Agricultural College. Scott and his wife Cath also run a small prime lamb production and opportunity dryland seed production enterprise. Contact: 0428 551 188

Aaron Freeman, Grower Member
Aaron manages 'Colara' at Tintinara owned by the Munro Family producing dryland lucerne hay and seed, cereal hay and cropping along with a self-replacing merino flock and prime lambs. Aaron and his wife Penny also own and operate a contract harvesting business Colara Contracting along with a prime lamb enterprise on a recently purchased property. Contact: 0428 875 600

Adam Zacker , Grower Member
Adam owns and operates the family farm at Tintinara with his wife Hannah. They run a mix of cropping, sheep (both self-replacing Merinos and prime lamb production), a herd of Angus cows and both dryland and irrigated lucerne seed and hay. Adam is passionate about the lucerne industry and its challenges. Contact: 0417 853 799

Rodney Lush, Grower Member
Rodney farms with his wife Sally at Coombe, producing lucerne seed, lamb and wool since 1991. The farm production system is based around centre pivot and flood irrigated lucerne and rain fed perennial pastures. He also provides farm business advice and support to clients in the Mallee, South East and Western Victoria as a consultant with Proadvice. Contact 0419 862 510.

Scott Campbell, Grower Member
Scott and his wife Sophie Campbell own a mixed farming business at Keith, producing Lucerne seed, hay grain and prime lamb production. As a business with a high reliance on lucerne Scott believes it is important to keep abreast of industry issues both domestic and international. His family have been involved in the lucerne seed industry for more than 40 years. Contact: 0417 887 562

Richard Prusa, Associate Member
Richard Prusa is the technical product development manager for the Seed Force Australia forage portfolio. With almost 25 years' experience in the agri-business sector, Richard has worked as an agronomist, seed production manager & product development manager across a range of cropping and forage species including Lucerne. Ongoing involvement in global R & D projects, commercialisation, marketing & the love of all things agricultural keeps the adrenalin pumping. Richard lives near Langhorne Creek with his wife and children and currently grows olives, lucerne hay and fat horses. Contact: 0467 770 353

Simon Allen, Grower Member
Simon is involved for 15 years in a family farming operation based at Keith, which produces irrigated lucerne seed and hay, cereal grain and hay, pulses, oilseeds and a commercial merino flock. Simon attended college, studying rural business management and has previously sat on the executive committee of Lucerne Australia and its variety trials committee. Contact: 0408 893 786

Katrina Copping, Executive Officer
Katrina was raised on a mixed farming enterprise at Mundulla and as an active partner in a family farm at Avenue Range has a good understanding of rural issues. She has spent most of her career working in research and extension and is strongly passionate about agriculture. Contact: 0439 538 332.