



# GRASSLAND SOCIETY OF NSW INC.

## Newsletter

Welcome to the second Grassland Society of NSW (GS NSW) newsletter for 2017. This issue is all about the recent Pasture Updates at Glen Innes (page 3), Bega (page 5) and Tocal (page 4) as well as a follow up on the Pasture Update held at Manildra last year (page 9). We hope that you have been able to attend a Pasture Update near you - if not drop us a line and suggest a location or a venue for a future Pasture Update.

As we come to the end of a financial year we must say a big thank you to our sponsors for the past two years. The support of these sponsors allows the GS NSW to deliver services to you our members. The 2015-16 and 2016-2017 sponsors were; NSW Department of Primary

Industries, Local Land Services South East, Incitec Pivot, Ag Innovations, Water NSW, Meat and Livestock Australia, Aus West, Commonwealth Bank Australia, Dow AgroSciences, Heritage Seeds, PGG Wrightson Seeds, Tableland Farming Systems, Upper Murray Seeds, and Wengfu Australia.

The end of the financial year also means that it is time to renew your GS NSW membership. Details on the various options for doing this can be found on page 11.

The other big news of the moment is the upcoming Conference at Cowra on July 24-26. The committee has developed a great program with something for everyone - I hope many of you can make it.

Program highlights and registration details can be found on page 2. Don't forget to check out the bus tours and make your selection fast before your favourite fills up - you don't want to miss a seat.

If you are keen to get more involved in GS NSW or at least find out more about what we do - why not attend the AGM on Tuesday 24 at the Cowra Services Club at 5.30 pm. All AGM attendees are then welcome to enjoy happy hour and canapes from 6.30 pm.

As always I am keen to receive articles, letters to the editor, photos etc. Please email any contributions for the newsletter to [carol.harris@dpi.nsw.gov.au](mailto:carol.harris@dpi.nsw.gov.au)

*Carol Harris,  
Editor*

### *For Grassland Society of NSW Members*

#### **Notice of Annual General Meeting of the Grassland Society of NSW Inc**

Date: Monday, 24 July 2017  
Time: 5.30pm  
Venue: Falcon Room, Cowra Services Club, Cowra

Notice is hereby given that the Annual General Meeting of the Grassland Society of NSW Inc will be held on Monday, 24 July 2017 at 5.30pm.

The business of the meeting will be:

- Receive and accept the Minutes of the Annual General Meeting held 20 July 2016.
- Receive and accept President's Report.
- Receive and accept Treasurer's Report.
- Election of Management Committee members.
- General Business.

Please RSVP to the Secretary, Janelle Witschi, either by mobile 0408 612 235 or by email: [secretary@grasslandnsw.com.au](mailto:secretary@grasslandnsw.com.au) if you are attending. Members are welcome to the happy hour and canapes afterwards.

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# 2017 GRASSLAND SOCIETY OF NSW CONFERENCE

## "Your system - Taking it to the next level"

July 24–26 - Cowra Services Club, Cowra

### MONDAY 24 JULY COWRA SERVICES CLUB

3.30 pm Pre Conference Registrations

5.30 pm Grassland Society of NSW Annual General Meeting

6.30 pm Happy Hour and Canapes

### DAY ONE - TUESDAY 25 JULY COWRA SERVICES CLUB

8.00 am Registrations

9.00 am Welcome & Welcome to Country  
David Harbison, President, Grassland Society of NSW, Representative of Wiradjuri Local Aboriginal Land Council

#### SESSION 1- The Big Picture

- *The Australian red meat industry and the path to long term prosperity* - Richard Norton, Managing Director, MLA.
- *Strife and Opportunity in Australian Agriculture: Here and Now and Over the Horizon* - Bill Malcolm, Department of Agriculture and Food Systems, University of Melbourne.

TRADE DISPLAYS & MORNING TEA

#### SESSION 2 - Filling the feed gap – A flexible system

• *Forage Improvement: the evolution of within species variation available to producers across temperate Australia* - James Sewell, Australian Research Manager, PGG Wrightson Seeds.

• *Australia's ability to fill the feed gaps* - Julie Brien, Producer, Greenethorpe.

• *Filling the Feed Gap: A Case Study and Farmers Perspective* - Stuart Tait, Producer, Mandurama.

LUNCH & BUS TOURS DEPART

#### SESSION 3 - Bus Tours

Tour A – Mandurama / Woodstock district  
Both "Sunny Downs", a beef breeding, trading and finishing family business near Mandurama, and "Greylands", a prime lamb and beef production enterprise, integrate cropping to achieve productive perennial pastures.

Tour B – Gooloogong /Canowindra district  
Firstly, Australia's largest intensive barn style dairy. Achieving high animal production on a large scale from quality pastures and crops. Then, Lucerne hay, prime lamb production, long term perennial pastures, irrigation and dual purpose crops.

Tour C – Cowra / Greenethorpe district  
A diverse farming and manufacturing business, comprising irrigated lucerne, lamb production and an energy and labour efficient automated lamb feedlot finishing system. The role and benefit of a range of traditional and new pasture species, as well as winter forages, in maintaining year-round livestock production both in 'as-fed' and 'conserved forms'.

Buses return to Cowra Services Club

6.30 pm Conference Dinner including entertainment - Nick Lee, a Former 60 Minutes Cameraman.

8.00 am Registrations & Trade Displays

### DAY TWO - WEDNESDAY 26 JULY COWRA SERVICES CLUB

#### SESSION 4 - Opportunities

• *Legumes and nitrogen – it's time to stop assuming* - Belinda Hackney, Central West LLS, Forbes.

• *How do you get the most out of native grass pastures without breaking the system* - Meredith Mitchell, Agriculture Victoria Research, Rutherglen.

• *Alternatives and Fundamentals – considerations when using fertilisers and ameliorants* - Neil Griffiths, NSW DPI, Tocal.

• *Feed gaps and pasture utilisation: challenges of grassfed beef production* - James Bjorksten, Producer, Yeoval

TRADE DISPLAYS AND MORNING TEA

#### SESSION 5 – Technology

• *Pastures from drones: the potential to use UAV's to monitor pasture biomass and quality in temperate grazing systems* - Anthony Clark, NSW DPI, Orange.

• *Making the most of DSE Potential* - Matthew Monk, General Manager, Sundown Pastoral Company, Kingstown.

• *The practicalities of Technology in commercial sheep production* - Hannah Marriott, Greta, Victoria

TRADE DISPLAYS AND LUNCH

#### SESSION 6 – Cowra Research Station - NSW Department of Primary Industries

• *The Effect of Extensive Feeding Systems on Growth Rate, Carcass Traits and Meat Quality of Lambs* – David Hopkins

• *Potential Benefits of Internal Pelvimetry in Merino Ewes* – Gordon Refshauge

• *Perennial crop research at NSW* - Matthew Newell

• *Dual Purpose Cereals, dry matter opportunities* – Peter Matthews

CONFERENCE CLOSE & AFTERNOON TEA (3.15 pm).

### REGISTRATION OPTIONS

**FULL CONFERENCE PACKAGE:** includes conference sessions on both days, conference proceedings, lunches, satchel, morning and afternoon teas, bus tours, canapes and conference dinner.

**Member: \$260, Non Member: \$330**

Single Day Rates, Student packages, Conference dinner only rates and bus tour only rates are available (refer to Registration Brochure).

2017/18 Membership can be paid prior to conference registration - for further information go to [www.grasslandnsw.com.au](http://www.grasslandnsw.com.au)

### HOW TO REGISTER

CONFERENCE REGISTRATION CLOSING WEDNESDAY JULY 19

Either register at Try Booking <http://www.trybooking.com/OQWF> or download the registration form from [www.grasslandnsw.com.au](http://www.grasslandnsw.com.au) and choose your preferred payment option.

*For further information please call David Harbison for conference program and presentations - 0408 820 467 or Janelle Witschi for registration details - 0408 612 235.*

## 2017 Glen Innes Pasture Update a success

The Glen Innes Research and Advisory Station was the venue for the 2017 Grassland Society of NSW Pasture Update on Wednesday 22 March 2017.

The event was well attended with 115 producers and university students travelling from across the Northern Tablelands to attend. The purpose of the event was to connect producers with current industry research and researchers as well as providing an opportunity to network with fellow producers.

GLENRAC Landcare Coordinator and event contact Kylie Falconer says 'the Pasture Update was a great event to deliver locally, attracting participants from across the Northern Tablelands to learn more about current and recent research findings that they can consider for adoption on-farm'.

'Our key note speaker was Richard Simpson, a Senior Research Scientist from CSIRO in Canberra. Richard's presentation linked a range of information relating to the use of phosphorus inputs on farm, including some myth busting on the phosphorus nutrient cycle and the impact of single super phosphate on soil biology. Richard encouraged producers to utilise soil monitoring on a regular and consistent basis as a management decision tool to support the use of any form of fertiliser use on farm.'

The Pasture Update also featured morning presentations from a number of other speakers including Brad Walmsley, NSW DPI; Jessira Perovic, MLA; Tom Amey, Chair of the MLA's Northern Region Southern Australia Meat Research Council and Matt Benham, New England Weeds Authority.

The afternoon sessions were a popular break-out from the morning's indoor presentations and featured concurrent sessions held onsite at the Research Station.



Attendees at the Glen Innes Pasture Update getting some hands-on experience using drones to collect still and video imagery on-farm.

Producers had the opportunity to have some firsthand experience with using drones on farms to view infrastructure and collect still and video imagery and live cattle assessment.

Recent wet weather conditions made access to the Station's legume experiment unsuitable for the large group. Instead producers were able to hear the latest on legume research being conducted at the Research Station from local Research Scientist, Carol Harris.

The Pasture Update also gave producers the opportunity to provide feedback to Meat & Livestock Australia's Southern Australia Meat Research Council on what they believe are the research, development and adoption priorities for Northern NSW beef and sheep producers. In addition, feedback from event participants will help shape GLENRAC'S focus on future events for 2017.

Look forward to more events in the district on precision agriculture techniques including the use of drones as farm management tools and soil monitoring and nutrient status mapping to assist with farm input decision making.

The 2017 Pasture Update was held in conjunction with a number of partner organisations including GLENRAC, Northern Tablelands Local Land Services, Grasslands Society of NSW & Northern Tablelands branch, Meat and Livestock Australia (MLA), MLA's Southern Australia Meat Research Council, New England Weeds Authority, NSW Department of Primary Industries.

*For more information contact GLENRAC Landcare Coordinator Kylie Falconer on 0427 325 901.*



Richard Simpson from CSIRO Canberra presenting his talk on the effective use of P-fertilisers for pasture production at the Glen Innes Pasture Update.

## Something old, something new and something borrowed

The Grassland Society's Pasture Update at Tocal 18 May was a marriage of new and future pasture technologies coupled with time proven technologies.

Meat and Livestock Australia provided the funding for the update and were well represented at the day. Cameron Allan, Project Manager, Environment and NRM provided an update on the Feedbase project outcomes and future direction.



Cameron Allan, Project Manager, Environment and NRM addressing participants at the Tocal Pasture Update

Tom Amey, Regional Chair, represented Southern Australia Meat Research Council (SAMRC). SAMRC is made up of seven regional committees, with a local producer as the chair. The role of the regional committees is to gather input from local producers and producer networks on local R&D needs. These R&D priorities, from each committee, are then considered by SAMRC to develop the regional R&D priorities. These priorities then inform the national priorities for sheepmeat and grassfed beef R&D recommended by the Red Meat Panel. Attendees, at the update, were then encouraged to provide feedback on what their Research, Development and Adoption priorities were, to help inform the future direction of levy-payer funded research and development for their district.

Peter Beale, Senior Land services Officer with the Hunter Local Land Services, presented data from work on "Improving nitrogen (N) use efficiency of high input NSW coast dairy pasture systems". Producers are usually faced with four questions concerning nitrogen: - Should I use nitrogen now? How much do I apply? Will it be profitable? What happens if it doesn't rain?

When timing post sowing applications of N, be confident the ryegrass has

established (usually within 10 days of sowing) apply 30 – 50 kg N/ha and expect to graze 30 – 35 days post sowing. Apply 40 – 50 kg N/ha after each grazing.

In spring along the coast, apply N while soil moisture is adequate that is August and September. In October rainfall can be variable, so as moisture declines reduce N rate in dry land pastures. The lower N rates can reduce the ryegrass competition and benefit emerging kikuyu. Shorten rotations to 21 days to maintain feed quality and open the canopy to encourage kikuyu growth.

Members of the Dungong-Gresford Land and Beef Group, Narelle Hand and Suellen Dunlop, provided an overview of the groups summer grass and legume trial. Their work highlighted the value of tropical grass species - Rhodes grass and *Setaria* for productive perennial grasses. A range of different hard seeded legumes where trialled and included *Biserrula*, bladder clover, arrowleaf clover as well as subterranean clover. Traditionally white clover had been the legume backstop but the newer legumes were demonstrating their productiveness. The trials also demonstrated the need for effective fallow preparation and fertiliser use.

Josh Hack, PGG Wrightsons reported on a Landcare funded trial conducted in conjunction with Hunter Local Land Services and James Neal of Oxley Island Dairy. The trial used both an Italian and annual ryegrass. Sowing ryegrass early can increase forage production, but the establishment risks are increased with the higher temperatures and insect pressure. The trial looked at improving the early establishment and forage production of ryegrass into an established kikuyu pasture. The trial demonstrated that early establishment and forage production were increased by using a low rate of glyphosate on kikuyu before sowing the ryegrass, a blanket spray of cobalt insecticide and seed treating the ryegrass.

Precision farming is being trialled across 30 lucerne farms in the Mudgee and Gulgong area. Ground-truthing has been used to integrate soil and pasture technology into irrigated dryland lucerne farms. This project is investigating paddock limitations, plant population, fertility, soil texture, salinity using EM 38, and pasture yield. The project is being led by Clare Edwards Senior Land Services Officer with the Central Tablelands Local Land Services. Ms Edwards said the challenges ahead included collecting high quality accurate data, correct analysis of data and using data to make informed decisions on-farm.

Sky Land Management was represented by Managing Director Phil Milling, who demonstrated the Yamaha RMAX Type II G Unmanned Aerial Vehicle (UAV) for herbicide application. Sky Land Management also use the Yamaha RMAX Type II G (UAV) for spreading granular product and seeding. The UAV is a cost-effective option in locations where land cannot be easily traversed by ground vehicles.

The eShepherd collar and virtual fencing technology was presented by Ian Reilly, CEO of Agersens. The audio cube is in the latest collar and is a new release. The applications which are of interest to graziers included: managing rotational or strip grazing as livestock are encouraged to move or remain in paddocks and mustering of livestock from paddock to the yards. Flexible virtual fencing was demonstrated to be useful along waterways, because it can be set up to follow the water course and is flood proof. Livestock monitoring can show grazing patterns, location and fence incursions.

It is envisaged with future developments the eShepherd will be able to detect Oestrus, when the cow is calving and in poor health to improve timely animal husbandry.

Increasing beef production on summer pastures was all about the package, said Neil Griffiths, Technical Specialist, Pasture Production, with NSW DPI. The package includes: correct management of the fallow to ensure pasture establishment, using adapted grass and legume species, soil nutrition mainly phosphorus, grazing management to maintain feed quality and ensure legume germination. If these management criteria come together then you have the package for increased animal production on pastures.

Variable fertiliser application to match the production zones across farms has been on the research agenda for a while. Matt Notley, NSW DPI Lecturer in Precision Agriculture, Tocal, demonstrated the Marshall spreader set up to deliver variable rate fertiliser based on the production zone map on a tablet device. One of the benefits of this technology is if you must change tractors you take the operating system on the tablet with you.

The Gloucester precision pastures project demonstrated that there is a large transfer of nutrients - phosphorus and potassium said Peter Beale, Senior Land services Officer, Hunter Local Land Services.

The soil testing across the trial paddock showed a marked gradient from the one

watering point to the highest point across the paddock. The lowest nutrient levels are often the most productive zones in the paddock and it is important to fence these production zones so they can be fertilised and managed differently to lower production zones.

The update was attended by 67 producers and industry representatives.

For more information contact Lester McCormick on 0427 401 542

The Yamaha RMAX Type II G Unmanned Aerial Vehicle (UAV) demonstrating its versatility for herbicide application at the Tocal Pasture Update.



## Speaker summaries from the Bega Pasture Update

### *Doug Alcock Graz Prophet Consulting*

Doug represented MLA in his role as NSW Coordinator of MLA's Producer Research Sites since 2013. Doug shared research and knowledge on many sites including work done on the Monaro, variety trials, pasture health (the pasture health kit) and making sure your legumes are fixing N.

### *David Harbison D R Agriculture P/L - Persistent perennials? An advisor's perspective.*

Persistence What is it? What influences it? and What's required? It is important to "be very clear and understand what you want the pasture to do within your business." Plan, plan and then plan. Find out what suits your area, be well prepared. Seek assistance to understand the basics before sowing a new pasture. Management of fertility status, weed levels, insect pressure and grazing all contribute strongly to the long term persistence of your pasture.

### *Helen Schaefer, District Vet South east LLS - Facial Eczema, Theileria, Q-Fever*

Facial Eczema Disorder mainly in sheep and cattle is most often recognized as a form of photosensitisation. Caused by a fungus which grows in dead pasture litter. Most often occurs in late summer to autumn where night time temperature is over 12-15 degrees C and humidity higher than 90%. Risk can be identified by regular monitoring of spore counts.

Spore monitoring program has been set up in Bega Valley to identify risk. Some significant losses have occurred before this program established. More information can be found at [www.dairyaustralia.com.au/facialeczema](http://www.dairyaustralia.com.au/facialeczema)

Theileria - are protozoan parasites carried by ticks and biting insects. The Bega district has Theileria in its herds, bringing animals into the area from areas where Theileria is not common can be a great risk to the animal, especially if the animal is under stress e.g. cow with calf at foot, and during the warmer months.

Q fever is an illness caused by the bacterium *Coxiella burnetii*, it is spread to humans from infected animals. Infected animals do not show any signs of illness. Some infected people have no or few symptoms. Common symptoms include fevers, chills and sweats, severe headaches, muscle and joint pain as well as extreme fatigue. People working with animals are the greatest at risk. A vaccine is available.



Attendees at the Bega Pasture Update inspecting ryegrass trials.



Attendees at the Bega Pasture Update discussing African lovegrass management.

Luke Pope, Agronomist, South East LLS - Temperate Perennial Pasture Establishment Checklist.

Following Dave Harbison's logic of Plan, plan then plan is the eight key stages of establishment checklist.

- 1 Plan and assess paddocks for pasture establishment.
- 2 Identify soil chemical and landscape issues.
3. Weed and Pest control in year(s) prior to sowing.

4. Absolute weed and pest control at sowing.
5. Adequate soil moisture at sowing.
6. Accurate seed placement- use quality seed.
7. Monitor weeds and pests after sowing.
8. Grazing management of new pastures.

*Dr Ralph (Wal) Whalley AM Assoc. Prof Environment and Rural Science UNE - Australian Native grasses in the grazing system*

Know your grasses! A low input low risk management system verses a high input high risk management system. Retaining moisture in the soil with ground cover and tussock like grasses. Strategic grazing verses set stocking to encourage groundcover and persistence.

*Kym Revington Far South Coast Dairy Development group (PTN) Pasture trials – Time of sowing.*

A time of sowing trial compared ryegrass and oats varieties sown in February, March, April, May and June. Results in DM t/ha revealed some significant differences over the months with the

earlier sowing in most cases being the better.

Nineteen entries of perennial ryegrass have been used in the Pasture Trial Network program at the Platt's property at Quaama. The trial was sown in May 2016 and will run for 3 years. The ryegrass is looking great after significant rain in early March following a very dry summer period, sorting out the persistence in this dryland situation. The local community is looking forward to seeing the results, knowing it will be relevant to our area.

*Dr Josh Dorough, Ecologist - African lovegrass demonstration site.*

A Bega Valley landholder believes "if we increase diversity (of native pasture) we are increasing the resilience of the landscape and also the health of my stock". African lovegrass (ALG) is a major threat to low input native pastures in the Bega Valley. Overgrazing, bare ground and poor pasture competition, particularly during drought, are primary causes of ALG invasion. In recent years landholders in the Bega Valley have adopted roller/rota wiping and carpet wiping to manage ALG invasions.

*For more information contact Wayne Schaeffer on 0405 159 098*

## Research Update

*Keeping you up-to-date with pasture and grassland research in Australia. Abstracts of recently published research papers will be reprinted as well as the citation and author details in you wish to follow up the full paper.*

### **Abiotic stress tolerance of kikuyu (*Cenchrus clandestinus*) and some related grasses and potential of kikuyu for agricultural and urban environments**

Duncan Fraser <sup>A,B</sup>, Peter Sharp <sup>A</sup>, Nabil Ahmad <sup>A</sup>, Brett Morris <sup>A</sup> and Richard Trethowan <sup>A</sup>

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B Corresponding author. Email: duncan.fraser@sydney.edu.au

**Abstract** The introduction of kikuyu (*Cenchrus clandestinus* (Hochst. ex Chiov.) Morrone) into Australia in 1918 has seen it become established and adapted to several geographic regions in a wide range of ecologies and environmental situations. After it naturalised to local conditions, researchers and farmers recognised the value of kikuyu in marginal and previously unproductive sites, where forage quality and quantity made this species popular with dairy farmers and pastoralists.

Its versatility and prostrate, mat-forming characteristics also led to the adoption of kikuyu by local governments,

homeowners and sporting organisations in urban environments as turf. Kikuyu has the ability to alleviate soil contamination and remediate soils, thus enhancing the use of previously unproductive land. However, the aggressive growth habit of the species, considered a problem in certain regions of the world, has led to a noxious weed classification in some states of the USA.

This review includes information on expected changes to world agricultural and urban environments and the potential expanded role of kikuyu.

The origin of kikuyu grass, genetic variability, tolerances to soil salinity and drought, and potential for genetic improvement are also discussed.

*Crop and Pasture Science*

<https://doi.org/10.1071/CP15380>  
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# Booming wool prices: hype or reality

John Ive, Talaheni

The recent rise in wool prices have attracted substantial media attention with claims that prices are resulting in the “best returns in 30 years”. Australian Wool Exchange (AWEX) maintains an indicator of market fluctuations (<http://www.awex.com.au/market-information/awex-wool-market-indicators/>) during the wool selling season to track the overall price of wool. The main indicator for Australia is the Eastern Market Indicator (EMI) and is available electronically back to 1979. Plotting EMI (Figure 1) highlights the cyclical variation in the EMI with the general trend line suggesting a steady increase in prices over the duration of the series with an average annual increase of about 18c/kg clean. The EMI annual minimum and maximum are increasing at 16.6 and 19.8 c/kg clean respectively indicating increasing annual volatility in the wool market over time. The EMI is currently above the level achieved in the heady days of the Reserve Price Scheme (RPS).

However, a dollar in 1979 was worth more than the 2017 dollar and the Reserve Bank of Australia (RBA) maintains a quarterly record of the fate of the Australian dollar and provides an on-line calculator (<http://www.rba.gov.au/calculator/>) for converting prices at one time point to another time point. Figure 2 shows the fortune of the Australian dollar since 1979 with a relatively rapid decline until 1990 before steadying more recently.

In today’s terms, a 1979 Australian dollar is worth about \$4.57 reflecting the change in purchasing power of the dollar over the period. This change in purchasing power needs to be recognised when

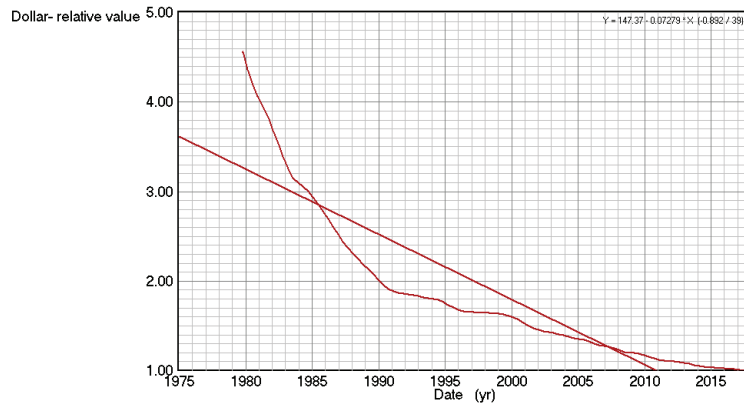


Figure 2: Changing value of Australian dollar from 1979 until 2017. The straight line shows the average annual decline which is approximately 7 cents.

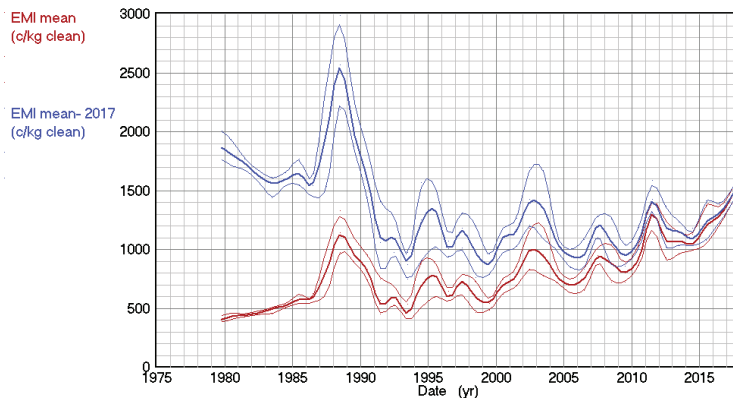


Figure 3: Comparison in annual mean EMI values from 1979 to 2017 (red line) and the adjusted price (blue line) recognising depreciation of Australian dollar.

comparing prices, such as EMI over time, particularly over longer time periods. The RBA calculator was used to convert the historical EMI records to comparable 2017 dollar values (Figure 3).

Figure 3 highlights the change in real dollar value since 1979, while the historical time series since 1979 shows that annual mean EMI is at an all-time high, the adjusted series however shows mean EMI is well short of the 1988 peak and almost on par with previous post RPS peaks in 1995, 2003 and 2011- suggesting an eight-year cycle with further minor peaks at the intervening four years. In fact, the maximum EMIs in 1995, 2003 and 2011 are all higher than that in

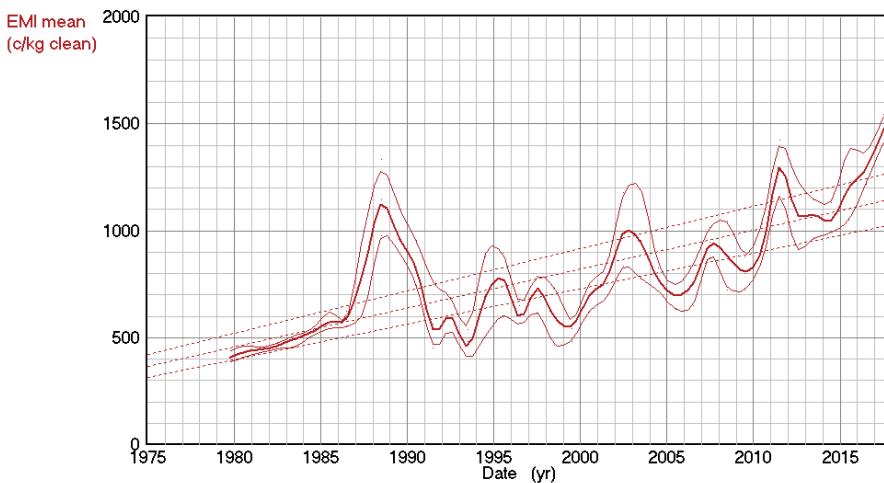


Figure 1: Eastern Market Indicator (EMI) fluctuations from 1979 until the present. The bold red line tracks the annual mean, with lighter red lines tracking the annual minimum and maximum variation. The dotted lines are the respective lines of best fit for each of the three lines.

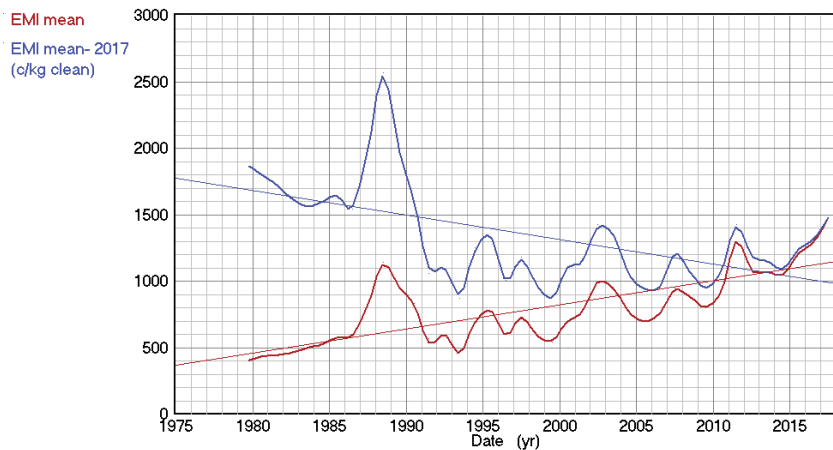


Figure 4: Comparison in annual mean EMI values from 1979 to 2017 (red line) and the dollar-corrected price (blue line) and the respective trend lines.

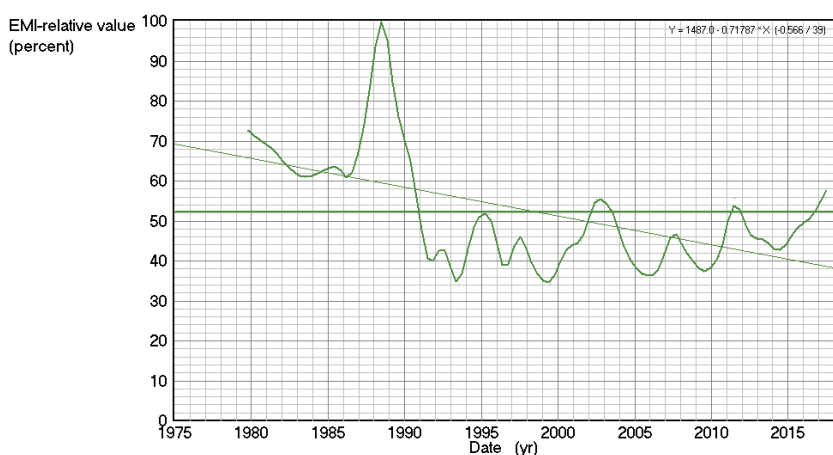


Figure 5: Relative EMI value from 1979 to 2017 along with trend line and average value for the series.

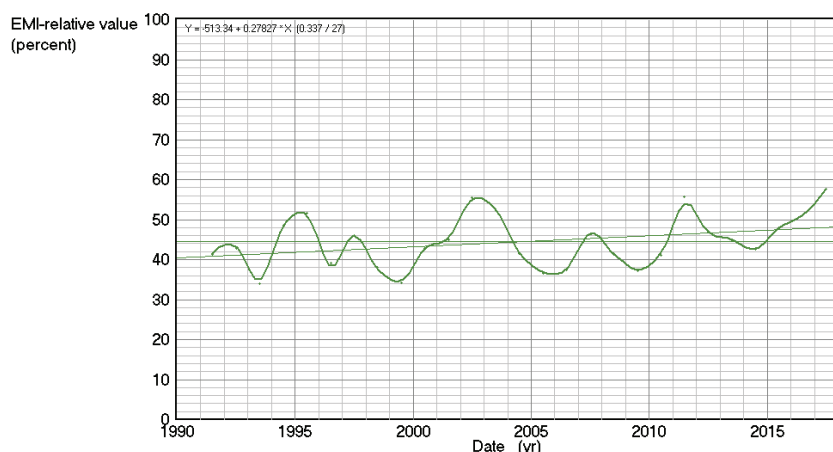


Figure 6: Relative EMI value following the abandonment of RPS in 1991 with trend line and average value for this reduced series.

2017 once EMI is adjusted for dollar depreciation- so far at least (Figure 3).

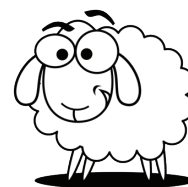
The time series indicates an annual increase in EMI of approx. 18 cents/kg; on the other-hand the dollar-corrected series shows an annual decline- coincidentally also of 18 cents/kg (Figure 4).

Figure 5 suggests that current wool prices as monitored by EMI are 58 percent of the prices recorded in 1988 and only 6 cents/kg clean above the long term mean. The plummet in the EMI from its peak in 1988 lead to the abandonment of the RPS in 1991 which had been implemented in 1974, the slide continued until 1993 with the EMI falling to a mere 40 per cent of its 1988 peak, considerably below the long term mean value of 52 percent. The steady rate of decline in EMI is 0.7 percent/yr.

If the series is truncated to the period following abandonment of RPS then there has been a slow increase approaching 0.3 percent/year (Figure 6), with an almost regular cyclical trend within a band of 34 to 58 percent of the RPS 1988 peak, with a mean value of 44 percent of that peak. With the annual mean EMI currently nudging above previous post RPS peaks (Figures 4 and 6), albeit marginally, has lead to the claim that wool prices are at a 30-year high.

To reach a 40-year high the mean EMI would have to increase a massive 1000 cents/kg clean in today's money. With post RPS peaks in 1995, 2003 and 2011 following a consistent eight-year cycle suggests the next peak is due in 2019 should this cyclical series continue.

Wool growers are no doubt hoping the current upward trend continues at least to that time.



### Conferences to consider

- ★ 2017 Symposium on Precision Agriculture in Australasia, 14-15 August 2017, Sydney University. Contact [brett.whelan@syd.edu.au](mailto:brett.whelan@syd.edu.au)
- ★ Grassland Society of Southern Australia - Annual Conference, 06-07 September Nagambie Victoria. [www.grasslands.org.au](http://www.grasslands.org.au)
- ★ Australian Agronomy Conference, "Doing more with less", 24-28 September, Ballarat Victoria. [www.agronomyconference.com](http://www.agronomyconference.com)



## More messages from the Manildra Pasture Update

The information provided at the Grassland Society of NSW Pasture Update at Manildra funded by MLA and supported by Local Land Services and NSW Department of Primary Industries last October has provided valuable information for agronomists and producers this autumn tailoring pasture programs to fill feed gaps throughout the year.

The agronomy scene was set with presentations from local agronomist Ross Yelland (Yelloco Ag) on local pasture agronomy and what works best for the different systems and enterprises being run in Central Tablelands and Central West Slopes. The role of the different perennial grass species and companion legumes and herbs such as chicory and plantain were discussed.

David Harbison (D R Agriculture) outlined the current status of soil fertility in the region and the key nutrients to consider. Belinda Hackney (Central West LLS) presented the results of recent legume/nodulation surveys across the Central West and Central tablelands. The results certainly highlighted the fact that what you see above ground does not necessarily reflect accurately what is going on below ground with effective nodulation and nitrogen fixation.

Grazing cereals have increased in recent years as producers aim to achieve year round production from livestock, to take advantage of current livestock prices, and spread the risk with the high input costs associated with intensive cereal cropping. Gordon Refshauge (Cowra based NSW DPI Researcher) looked at the results and challenges with demanding sheep grazing cereals. Brett Littler (Central Tablelands LLS) looked at the role of plant tissue nutrients for livestock.

After foraging at the picturesque Manildra Golf Club the Update participants were taken on a three property tour to see the theory in action. This was particularly challenging given the excellent winter and spring rains and prolific growth and production from perennial based fescue/lucerne/clover based pastures.

The following outlines the property visits in more detail than the previous report (December 2016 issue of this newsletter).

### **“Tuen” Manildra**

Tuen is a 122 ha lease block that is part of the larger Wondilla property owned by Christopher and Susan Miller.

The block consists of 8 paddocks ranging in size from 13 to 20 ha. The block was

mainly used for cropping until 2007 when the first lot of pasture planting was done. These original lucerne and clover mixes are still going in 3 paddocks.

Currently there are approximately 450 composite ewes with close to 800 lambs at foot running on the block. The ewes are joined annually in March to composite rams so the flock is self-replacing. In addition to the prime lamb enterprise agistment is often taken on the farm to take care of any feed surpluses. There are 4 main pasture types currently being used on the farm.

1. Lucerne & annual clovers – 48 ha
2. Mediterranean fescue, lucerne & annual clovers – 22 ha
3. Lucerne, Herbs & annual clovers – 15 ha
4. Annual forage crops – 37 ha

These pastures have all been designed to have the right quality and quantity of feed available for the needs of the animals grazing them.

The annual forages (Italian ryegrass and oats) are used just prior to lambing to give the perennial pastures time to rest as these will be used for lambing and post lambing. These also become fallow over summer which aids in keeping ewe weight down over this period. The fescue and lucerne pasture is used to lamb on as it keeps good cover and really starts to put on a lot of growth at this key time of the year. The lucerne and clover pastures are used post lambing and also during weaning while the lucerne, herb and clover pastures are used for warm season fattening and bringing maiden ewes up to weight.

The pastures are rotationally grazed and are treated like crops i.e. sprayed and fertilised annually. This has led to the longevity of the stands.

‘Tuen’ is also home to a PGG Wrightson R&D dryland lucerne trial as well as trials and demonstrations of other potential pasture grasses and legumes suitable for the region.

#### Take home messages

- Design pastures based on animal and seasonal production requirements
- Treat your productive pastures like crops
- Don't try and get everything from the one paddock
- Understand the growth curves of your pastures and utilise this to maximise returns
- Know what works with what

### **“Ridgehaven” Cudal – RB & JF Legge**

The overall operation consists of a Sheep Stud, prime lamb enterprise and wool production conducted over three properties on 2025 ha between Cudal and Forbes.

Typical pasture mixes on the properties are:

- Short term - forage grazing cereals; vetch; ryegrass.
- Medium term forage - lucerne; fescue/lucerne mixes.
- Long term forage - phalaris based with lucerne/clover/plantain; native summer grasses/clover; subtropical grasses

Livestock production systems vary with the different properties. Cudal is primarily used for Terminal Seed Stock Production, whilst the Forbes properties are used for Prime lamb production from a 1st Cross Ewe base targeting the sucker market and wool production from a Merino Base. At differing periods of the year set stocking, rotational grazing and timed crash grazing are used to achieve better pasture utilisation.

‘Ridgehaven’ is also home to some impressive NSW DPI cereal grazing trials. Peter Matthews (NSW DPI) took participants through the various species and varieties in the trials and their fit in grazing systems. This in-field look complemented Gordon Refshauge's morning talk on grazing cereals with demanding sheep.

#### Take home messages

“Fodder is King” - we farm for fodder and targeting feed gaps while increasing nutritional requirements for differing stock classes throughout the year, to maximise growth rates and Gross Margins across all areas of the business.

“Know what you need through the year, Grow it well, and utilize it well”

### **“Cudal Park” Cudal – John Coughlan**

Managing fescue – where it fits in the system. Winter active fescue plays a critical role in lifting productivity and maintaining a low cost of production in the Cudal Park grazing business. It forms the basis of one half of the risk management strategy of the fine wool enterprise. John asked participants not to look now as they were standing right in the middle of his strategy to minimise risk in the grazing operation – futures

and forward contracts are not used at all. These two halves are made up of excellent genetics and highly productive perennial pastures and one is no good without the other.

John knows the Risk Management Strategy is working because not only has it allowed the business to stay profitable in fine wool production during a prolonged low price cycle, it has also enabled us to go finer and invest more in better genetics to grow more wool /ha and lift quality across the flock thereby increasing the productivity of the livestock enterprise. John believes now is the time to get more into fine wool production, not out of it. In other words the fescue has enabled us to act counter cyclical.

Pastures are sown at 4 kg lucerne, 4 kg fescue and 2 kg of sub clover with 100 kg/ha MAP fertiliser through an old Connor Shea Scariseeder. Varieties sown are Flecha and Resolute.

Soils are predominantly red basalt with a pH 4.7-5.2 (CaCl<sub>2</sub>) and Cowell phosphorus levels of 33 to 48 ppm. Sulphate sulphur levels range from 8 -17 (KCl40). Pastures are sown on their own and treated as a crop, and used as weaner paddocks in their first year of grazing. This system has seen no failures with only light grazing at high stocking rates used in the establishment phase. A yearly stocking rate of 11.5 dse/ha is maintained with the use of dual-purpose wheats and oil seeds. Approximately half the farm is cropped with wheat and canola while the other half is under pasture.

Pastures are fertilised annually with 100-125 kg/ha of single superphosphate, depending on soil test results, season and stocking rates.

John sees that the advantages of winter active fescue include:

- Better livestock performance as stock can be finished or maintained when needed (livestock perform well on it).
- No staggers as with phalaris pastures.
- Very tolerant to heavy grazing and dry periods.
- Well suited to our area, they grow along the sides of laneways.
- Grows very well with lucerne (eliminates red-gut problems and reduces bloat risk).
- There is no need for weed control



John Coughlan outlines how Mediterranean fescue is utilised at Cudal Park to the participants of the Manildra Pasture Update in October 2016.

chemicals for many years, and enables low VM (vegetable matter) in the wool clip (0.6- 0.8%).

- Maintains good ground cover
- Enables good feed quality to be available at any time of the year depending upon rainfall timing (no pattern).

Some of the disadvantages of winter active fescue include:

- They become rank in a big spring and need to be brought back under control.
- Stock can lose weight under certain conditions and stock need to be monitored for this (the crowns can get needle like stalks covering them preventing grazing of the new shoots).
- Barley grass will move back in after 7-8 years of pasture

Basically fescue has allowed us to eliminate supplementary feeding. It had become a high cost impost to our business which we became aware of through yearly benchmarking but keep in mind ours is a wool growing operation so we don't go all out to produce finished stock. Our approach now is "we drought feed or we don't feed". Having said that the fescue enables us to have our cull lambs born and gone within twelve months thereby freeing up more room

for our lambing ewes. Once we have identified our culls in our lambs there is no point holding on to them past twelve months as they are taking up valuable space and leaving less room for more productive stock. This year for example these pastures have delivered \$95 lambs of 14 micron at 11 months after producing 3 kg of fleece at 14 dse /ha.

Also our 5 ½ year cast for age wethers are 16 micro cutting 5.3 kg wool and dress out at 31 kg over the hook while still having very good wool quality (not doggy).

Our fescue pastures enable us to optimise our wool growing at the strategic level while at the same time we can maximise our meat side of the equation at the tactical level thereby creating a dual income enterprise, but not compromising the performance of the wool clip. We are first and foremost a fine wool operation. The meat is just a by-product.

Our primary focus at "Cudal Park" is Whole Farm Nett Profit for the Whole Year.

*Note: John is a Past President of the Grassland Society of NSW*

## Where should the next Pasture Update event be?

Have you attended a Grassland Society of NSW Pasture Update Event? If not has it simply been there hasn't been one close to you? Or perhaps a full day event or week day event doesn't suit you?

The Grassland Society of NSW state management committee is keen to hear from members on where they would like to see future Pasture Update events plus feedback on the event format and possible topics and field activities would be greatly appreciated.

Email your comments/suggestions to [secretary@grasslandnsw.com.au](mailto:secretary@grasslandnsw.com.au)



## From the President

How varied our state pasture country is. From reports in the New England of one of their best autumns, to Central NSW where we saw terrific March rainfall but not much since, to relatively dry conditions in the south and far north west. Speaking with friends at Walgett, it would appear it 'depends which side of Bourke you are'. One would normally associate that entire north western corner to be similar, however this year rainfall has been very patchy, some very lucky receiving good late summer rain, while others are constantly missing out.

The same could be said of the recent 'predicted' rainfall event of last weekend. Much of the state was looking to receive 30 – 50 mm, and indeed some did. However the lovely shades of green and blue on the TV forecast (25 – 75 mm predicted) over much of central and southern NSW resulted in sub 10 mm reports for many, a few up to 16 – 20 mm.

All in all, better than zero. Grass appears to be getting short, and soil temperatures are now heading south. Growth will be limited for the next 3-5 months, depending where abouts you live, so I hope you all manage as best you can.

Fortunately the livestock markets are remaining very strong. At the up-coming Grassland Conference, to be held in Cowra July 25 and 26 (registrations open and online), MLA Managing Director, Richard Norton, will address the audience. His paper, The Australian red meat industry and the path to long term prosperity will provide insight into where MLA predicts the industry is headed. Following Richard will be researchers and producers presenting to topics such as 'Filling the feed gap', 'Opportunities in pastures', 'Technology and use of it', and a visit to the Cowra Research Station'.

The 'Pasture Updates' have again been active since my past report. Updates at

Glen Innes, Bega and Tocal have been run, with very good attendances across the board. Following the conference

in July, the central tablelands branch will be planning to hold an 'Update' in September, and there are also moves for a similar activity in the south of the state. Please keep an eye on the society web site for the dates and locations of the 2017 Pasture Updates.

Here's hoping that Mother Nature finds a few spots she hasn't been to for a while, and everyone can get a bit of relief. To those that have it, enjoy it and make the most from it. I look forward to talking with members and guests at Cowra, or at a pasture updates later this year. All the best,

Regards,  
David Harbison,  
President.



### Membership subscription due now for 2017/2018

Annual Grassland Society of NSW subscription of \$60 for 2017/2018 is due July 1 2017.

Payment methods: Cheque, Credit Card (Mastercard or Visa) or electronic\*

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\* If paying by electronic banking, don't forget to email the Secretary (secretary@grasslandnsw.com.au) with your details

Don't forget you can also go to [www.grasslandnsw.com.au](http://www.grasslandnsw.com.au) and access the payment page via the green "JOIN NOW" button. Payments are processed through PayPal, but you don't need a PayPal account - simply choose the option to "Pay with a credit or debit card" which is below the login area on the PayPal page. Don't forget to add your name to the comments box so we know you have paid.

### NEW MEMBERS

*The Grassland Society of NSW welcomes new members*

*Martin Addison - East Gresford, Suzanne Briggs - Albury  
Amanda Britton - Shoalhaven Heads, Brendan Butler  
- Gilgandra, Tom De Mattia - Bomen, Philip Edmonds -  
Mosman, Murray Gregory - Gladesville, Nemer Jabbour -  
Lewisham, Stuart Johnston - Orange, Vincent Rheinberger  
- Boorowa, Nathan Simpson - Gollan, Trent Stainlay  
- Grafton, Jo Tanner - Lima South, Simon Turpin - Scone,  
Peter Waghorn - Bowraville, Mike McKenzie - Yass River,  
Narelle Hill & Garry McGrath - Mount David, Emily Sims -  
Tamworth and Rose & Lionel Delaney - Rylstone.*

### FAX NO MORE

We would like to advise that the Grassland Society of NSW no longer has facsimile facilities.

The best way to get in touch with the Grassland Society is by email - secretary@grasslandnsw.com.au, by mail at PO Box 471 Orange NSW 2800 or via our webpage [www.grasslandnsw.com.au](http://www.grasslandnsw.com.au)

### Disclaimer

While every effort is made to publish accurate information the Grassland Society of NSW does not accept responsibility for statements made or opinion expressed in this newsletter.

Inclusion of an advertisement in this publication does not necessarily imply an endorsement of the company or product of the Grassland Society of NSW.

***The Grassland Society of NSW Inc is a unique blend of people with a common interest in developing our most important resource - our Grasslands***

The Grassland Society of NSW was formed in March 1985. The Society now has approximately 500 members and associates, 75% of whom are farmers and graziers. The balance of membership is made up of agricultural scientists, farm advisers, consultants, and or executives or representatives of organisations concerned with fertilisers, seeds, chemicals and machinery.

The aims of the Society are to advance the investigation of problems affecting grassland husbandry and to encourage the adoption into practice of results of research and practical experience. The Society holds an annual conference, publishes a quarterly newsletter, holds field days and is establishing regional branches throughout the state.

Membership is open to any person or company interested in grassland management and the aims of the Society. For membership details go to [www.grasslandnsw.com.au](http://www.grasslandnsw.com.au) or contact the Secretary at [secretary@grasslandnsw.com.au](mailto:secretary@grasslandnsw.com.au) or at PO Box 471 Orange 2800

***Office Bearers of the Grassland Society of NSW - 2016-2017***

**State Executive**

David Harbison (President)  
Keith Garlick (Vice President)  
Janelle Witschi (Secretary)  
Frank McRae (Treasurer)  
Mick Duncan (Immediate Past President)  
Carol Harris (Editor)

**Committee:** Helen Burns, John Coughlan, Clare Edwards, Nathan Ferguson, John Ive, Lester McCormick and Luke Pope.

**Branch Representatives**

Lester McCormick (North West Slopes)  
John Coughlan (Central)  
John Ive (Southern Tablelands)  
Mick Duncan (Northern Tablelands)  
David Harbison (Central West Slopes and Plains)  
Nathan Ferguson & Helen Burns (South Western Slopes & Riverina)

If you are interested in reactivating an old branch or forming a new branch please contact the Secretary at [secretary@grasslandnsw.com.au](mailto:secretary@grasslandnsw.com.au) or by mail at PO Box 471 Orange NSW 2800

***Grassland Society of NSW Snippets***



**Next Newsletter:** The next edition of the newsletter will be circulated in September 2017. If you wish to submit an article, short item, a letter to the Editor or a photo please send your contribution to the Editor - Carol Harris at [carol.harris@dpi.nsw.gov.au](mailto:carol.harris@dpi.nsw.gov.au) or DPI NSW 444 Strathbogie Road Glen Innes 2370. The deadline for submissions for the next newsletter is Monday 7th August 2017.



**Electronic newsletter:** Don't forget you can receive the Grassland Society of NSW newsletter electronically. Just email your details to Janelle ([secretary@grasslandnsw.com.au](mailto:secretary@grasslandnsw.com.au)) and you will be added to the list. Next newsletter you will receive an email notification with a link to the newsletter on the website.



**Fan of Facebook -** make sure you check out the Grassland Society of NSW Facebook page. You can either search for GrasslandNSW or access the Facebook page through our web site. Pasture Update details will be posted on the Facebook page as well as the website. Please feel free to Like Us, as well as post photos of pasture and/or related topics in your area.

**Grassland Society of NSW - PO BOX 471 Orange NSW 2800, [www.grasslandnsw.com.au](http://www.grasslandnsw.com.au)**

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