

Regional Landcare Facilitator Newsletter, Oct / Nov 2013



HOSTED BY THE WESTERN MURRAY LAND IMPROVEMENT GROUP

A message from the Regional Landcare Facilitator

Hello Everyone,

The Regional Landcare Facilitator Newsletter is now available to pick up as a hard copy at the Wakool Store, Moulamein Newsagency, Kyalite Hotel, Tooleybuc Post Office and Tooleybuc Central School in addition to the Barham Newsagency. Thankyou to the local businesses for their support.

This newsletter edition covers some recent activities conducted by local groups which include the WMLIG presentation from the "Hay Plains to the Gobi Desert" and the Central Murray BestWool BestLamb workshop covering "Pasture, Post-mortems and Planning".

Murrakool Land for Wildlife released their bird brochure "Woodland Birds of the Wakool Shire" at the Barham and Koondrook Show on Saturday 17th October. The guides are available for \$3.00.

Whilst on the topic of wildlife, the Murray Catchment Management Authority has just released a Brolga Habitat Bird Guide. Some information from the guide is enclosed as well a link.

There are numerous great photo's of local flora and fauna submitted in this edition for the Murrakool Land For Wildlife photo competition. The "People's Choice Award for Photo of the Year" was voted at the Barham Show with the winner being Jill Hooper for the Velvet Ant photo.

Congratulations to Jill and the other placegetters. Winning photos can be viewed on page 13.

Upcoming events include a workshop at Hay on Profitable Sheep Nutrition and Management on the 30th October.

The North Central CMA is hosting "Chicks in the Sticks" on the 14th Novem-

ber to celebrate and acknowledge the achievements of women in agriculture and the environment.

The Central Murray BestWool/ BestLamb Group is looking for expressions of interest from people interested in doing a Lifetime Ewe Management course starting on the 20th January. Previous participants in the course have experienced significant improvements in productivity and profitability on their farm.

On a final note congratulations to Alex Anthony on her appointment as Chair of the new Local Land Services Board for the Murray Catchment.

[Roger Knight, Regional Landcare Facilitator, Western Murray](#)

Murrakool Land for Wildlife

Photo Competition Submissions



Above: Giant Banjo Frog. Photo courtesy Elizabeth Kaylock See more photos Pg. 13, 14 and 15

Special points of interest:

- LEARNINGS FROM PASTURE AND LAMB POSTMORTEM WORKSHOP
- LOCAL GRAZING PROJECTS APPROVED
- NEW ONLINE TOOLS FOR LIVE-STOCK PRODUCERS
- BROLGA HABITAT GUIDE LAUNCHED
- NEW LOCAL BIRD BROCHURE RELEASED

Upcoming Events!

Profitable Sheep Nutrition and Management Workshop



A profitable sheep nutrition and management workshop will held in the RSL Conference Room, Hay Library, 204 Lachlan Street, Hay on **Wednesday 30 October 2013 at 9.00 am.**

The workshop will cover several topics including

ewe and pastoral nutrition, and is targeting the rangeland grazing environment.

RSVP Sally Ware
Murrumbidgee CMA (Lands Office) on Mob: 0429 307 627
Ph: (02) 6993 2070
E: sally.ware@cma.nsw.gov.au
by October 25th.

MCMA Brolga Habitat Guide Released



Above: Brolga (classified as vulnerable in the Riverina) Photo courtesy Mathew Herring. See Tech Note on Pg. 12

Chicks in the Sticks event at Cohuna

Rural women in north central Victoria are invited to a twilight dinner on Thursday 14 November from 5.30 – 9.30 pm alongside Gunbower Creek, Cohuna. 'Chicks in the Sticks' is celebrating and acknowledging the achievements of women in agriculture and the environment.

The evening begins with drinks along the Gunbower Creek, learning about the wildlife, water and wetlands. This will be followed with a magnificent two-course dinner, live music and a chance to win a fantastic raffle!

After dinner hear from guest speakers Libby Price (ABC Country Hour presenter), Katrina Myers (local

farmer, Barham Avocados) and Aunty Esther Kirby (Respected Barapa Barapa Elder) who will share their experiences in agriculture and the environment.

This is a wonderful social occasion for friends to gather in their gumboots and cocktail frocks and enjoy relaxed dining in a beautiful marquee amongst the trees.

Bookings are essential, to secure your seat contact the North Central CMA on (03) 5448 7124 or email info@nccma.vic.gov.au.

For further information view the flyer

online: www.nccma.vic.gov.au.

'Chicks in the Sticks' is sup-

ported by funding from the North Central CMA, Caring for Our Country, the Australian Government's Regional Landcare Facilitator project and the Victorian Government's Healthy Waterways program.

When: Thursday 14 November 2013

Time: 5.30 pm to 9.30 pm

Dress: Cocktail and gumboots!

Cost: Free event for rural women (drinks at bar prices)

Where: Treetop Scout Camp, Gunbower Island State Forest (just off the Koondrook-Cohuna Road – follow the signs).

Lifetime Ewe Management Course

The Sheep CRC, in partnership with Rural Industries Skills Training (RIST), presents a practical course focusing specifically on the nutrition and health issues associated with the ewe and develops participant skills in sheep assessment and feed budgeting, based on key information from the lifetimewool project.

Lifetime Ewe Management (LTEM) is a nationally accredited course involving groups of 5 producers meeting in 6 'hands-on' sessions over 12 months, with a trained LTEM facilitator. During these meetings, the group visits each participating farm and learns skills in condition scoring, pasture assessment and best practice management to increase lambing

performance and wool production. It is structured to maximise knowledge retention, skills development and practice change. Each producer monitors a mob of their own ewes to demonstrate the effects of ewe nutrition and management in their environment. The course is coordinated by Rural Industries Skills Training (RIST), LTEM has proven results to increase on-farm productivity and profitability as follows;

- Increased whole-farm stocking rates by 11% to 13%;
- Increased lamb marking percentages by 10% to 14% depending on enterprise type;

- Decreased annual ewe mortality rates by up to 43%;
- Overall, increased number of lambs weaned per hectare by up to 30%;
- Increased farm profit every year by up to \$10 per ewe (based on current market prices), for Merino and maternal flocks in the high rainfall and sheep wheat zones (ignoring potential gains in stocking rate);

To register your interest in course participation contact the Central Murray BestWool BestLamb Co-ordinator Rick Ellis on 0428 372 357.



From the Hay Plains to the Gobi Desert

The Western Murray Land Improvement Group (WMLIG) held an information night with guest speaker Ian Auldish who presented, *"From the Gobi Desert to the Hay Plains"* on the 25th September with 38 attendees.

Ian has over 30 years experience in natural resource management in the Riverina and Asia and is widely recognised for his agricultural skills, not only running a successful local irrigation and rangeland grazing enterprise, but also working as a consultant in China and Mongolia for many years and was given a Friendship Award, the supreme award the Chinese government gives to foreigners who have made outstanding contributions to China's economic and social progress.

Ian is involved in the Hay Landcare Group and works closely with the Murrumbidgee Catchment Management Authority as the Chairman of the Hay/Balranald Landcare Network.

The night provided information on Landcare work Ian had been doing in Asia and compared this to projects being done in the Hay region.

Ian gave an overview of agriculture in China where 40% of the land is grazed grassland and discussed the move from communal livestock management on public land to semi subsistence household livestock enter-

prises and the future move to corporate high tech enterprises. A case study was provided on re-establishing grasslands in areas of Mongolia and teaching people the benefits of resting land to restore grasslands. The key result was to give people the confidence that land degradation is reversible and the grasslands can be there for future generations, it just needs appropriate management.

Ian then gave an overview of their local Landcare group which has completed a number of projects based on the needs of the Landcare members and the community.

Projects have included planting of forage shrubs as an Enrich themed project, weed control, revegetation of abandoned irrigation land, low input fodder production from lower priority irrigation country, promotion of environmental management systems on properties, supplying water for wildlife and wetlands.

Environmental consultants were contracted to assess the health and condition of grazed rangeland systems around Hay to develop future management protocols.

Cultural tourism presented an opportunity also, with Shear Outback - the Australian Shearers Hall of Fame being developed. Many of the projects have applications in our local region.

Private Property Wetlands Watering Projects

Emma Wilson from the NSW Office of Environment and Heritage provided an overview of the Private Property Wetlands Watering Project and is looking for opportunities in the Murray and Lower Darling valleys.

The program is;

- a voluntary program
- Landholders nominate wetland sites via expression of interest process
- Water delivered via pumping, Irrigation systems - often similar to watering crops

For further information contact Emma on;

Office: 02 6022 0617

Mobile: 0418 962 697

Email: emma.wilson@environment.nsw.gov.au

Website: www.environment.nsw.gov.au

WMLIG Chair closing address

Phil O'Neill, Chair of the WMLIG, thanked Ian and Emma, and re-iterated the point that the WMLIG is there to meet the needs of the community and the group welcomes any new members.

Phil said we are currently looking for individuals that can provide strategic input into activities and projects that can improve agricultural and environmental outcomes in the area.



Ian Auldish presenting at the Barham Club



Mongolia grasslands pre management change



Mongolia grasslands post management change



Emma Wilson providing an overview of private environmental watering opportunities



A night covering the three “P’s” - Pasture, Post-mortems and Planning



Taking pasture cuts for available feed calculation



The Central Murray Best-Wool / BestLamb Group met at Jamie Semmlers' property, "Reedy Waters" near Murrabit on Monday 12th August to cover feed budgets followed by a post-mortem examination of dead lambs and an annual review and planning session at the Murrabit footy sheds.

Feed On Offer

Sam Ellis from Vic DPI outlined how to estimate a feed budget using two methods to calculate Feed On Offer (FOO).

One estimation method uses photo cards which was presented in a booklet titled "Feed on Offer Photo Gallery" from Lifetime Wool, handed out to participants. The photo cards have pictures to compare dry matter in Kgs / ha FOO to your paddocks for different seasons (usually autumn FOO is only half that of spring FOO for the same height for example) and different pasture types or stubble. The estimated amount of dry matter available using the photo cards was a bit under 2200kg DM.

The second method calculates FOO using actual pasture weights. Pasture is cut to ground level from a representative sample quadrat 1m x 1m square. The sample is weighed and microwaved and from a final dried weight, the Kg / Ha of FOO is calculated. The calculated weight from

the collected sample microwaved was 2040kg / ha.

Obviously the more samples taken in a paddock/s, the more accurate the results will be.

The following is a guide recommended as a minimum FOO rate for ewes under different stages of production. The recommendations are based on balancing feed / energy intake vs energy expended by sheep foraging for food to maintain adequate nutrition and good growth rates for ewes and lambs .

In the break of season the target FOO is;

- 500kg DM/ha minimum required before grazing after the break.
- 700kg DM/ha min. required to maintain the weight of ewes that are dry or in early pregnancy.
- 900kg DM/ha min. required to maintain the weight of ewes at mid-pregnancy (day 90).

In winter/early spring the target FOO is;

- 1000kg DM/ha min. FOO for single bearing ewes in late pregnancy.
- 1200kg/ha min. FOO for twin bearing ewes in late pregnancy.
- 1200kg/ha min. FOO for lambing and lactation of ewes rearing singles.
- 1800kg/ha min. FOO for

lambing and lactation of ewes rearing twins.

Participants were then shown how to calculate the length of time a paddock can be grazed. The calculation uses an assumption of sheep eating 3% of their body weight per day. In the case of Jamie's paddock he had 60kg ewes and 15kg lambs so they would eat 1.8kg and 0.45kg respectively each day. The 330 ewes would eat 594 kgs/day and the 287 lambs would eat 129kgs/day (total 852kg/day).

The 50 ha paddock with 60,000 kg available dry matter (grazing from 2040kg/ha down to 1000kg/ha) would therefore last 70 days.

Obviously the paddock FOO will last longer with supplementary feeding or if the 50 ha paddock was divided into smaller paddocks and rotationally grazed.

Rotational Grazing

Sam explained how rotational grazing works to increase dry matter production. If the plant is allowed to recover after grazing it will have more leaves for increased light capture and provide more energy to the roots so they can go deeper and access more moisture and nutrients. This allows the plant to grow faster dramatically improving pasture utilisation .

Grazing should start at the four leaf stage.



Assessing a representative area of pasture in the paddock

A night covering the three “P’s” - Pasture, Post-mortems and Planning....Continued

Lamb post-mortem examination

Sam showed participants how to conduct a simple post-mortem examination on lambs to help try and determine the cause of death.

Some indicators were the condition of the lung and whether there was kidney fat present and whether the lambs had walked. If they had milk for example and had walked this means the mother may have abandoned them. If they had not walked, it may indicate that the lamb may have died at

birth as a result of possibly bacteria related pathogens such as *Listeria* for example.

Review and Planning

The group conducted a review of what worked well and developed a plan on what they should focus on in the year ahead. In summary this was;

- Pasture walks on producer trial sites with industry representatives.
- Dryland perennial pasture system field trip.
- Feedlotting / supplementary feeding.
- Benchmarking / standardising.
- Nullawil visit to look at rotational grazing systems and electronic ear tags.
- Stock control systems. Fencing and stock handling infrastructure.
- Carcus competition for the 2014 Swan Hill Show
- Host another Bredwell Fedwell day.



Postmortem examination of dead lambs to determine likely cause of death.



Local Projects

Grazing Options for Retired Irrigation Land

The Western Murray Land Improvement Group has received funds from the MCMA for a 4 year project looking at grazing options for retired irrigation land.

The project will investigate a range of pasture species and management regimes to increase production in these ex-irrigation areas and compare the economic impact of the adoption of these options verses the “do nothing” (voluntary/ naturalised pasture) alternative.

Areas of the Central Murray Irrigation districts are going to be faced with a decline in the amount of irrigation water available, due to water buy backs associated with the Murray Darling Basin Plan.

Murray Irrigation Ltd (MIL) already has a channel retirement program in place and irrigators are selling water

and shifting to annual purchasing of water when conditions allow.

This means large areas of land that previously was irrigated will change to dryland; and the frequency of irrigation on some areas will be greatly reduced.

This puts pressure on dryland areas of the farm to produce, and there will be a need for landholders to find new ways to use previously irrigated land to generate income.

The changes to water regimes mean landholders will have to adapt very quickly to new agricultural management and land uses. Much of the land subject to change is occupied by heavy sodic soils not suitable for continuous cropping, and therefore future use will likely be dryland grazing of a range of pasture types.

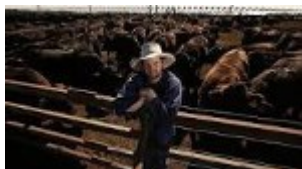
The community, through the Western Murray Land Improvement Group (WMLIG), has identified a need to investigate a range of options for the use of previously irrigated land in order to maintain productivity and profitability of farming in this landscape.

Land where irrigation has been removed in the project area tends to slowly return to a semi-native state, however where land levelling has been carried out or disturbance has been high, much of the naturalised pasture is dominated by annual species such as Barley Grass, roly poly and spring weeds.

In doing so the project will also address community concern over the impact these changes will have on community viability, through investigating alternative production options for retired irrigation land.



Revised cattle trade rules



In 2007 industry bodies developed and launched the Australian Cattle Trade Rules (ACTR) to provide standard terms and conditions for the contracting of cattle.

The rules have recently been reviewed and updated by a committee drawn from peak industry councils.

The trade rules underpin the cattle contracts forming the basis for trade, and guide the actions of the buyer and seller for the life of the contract.

The ACTR provide:

- consistency in contract

terms and conditions

- transparency in the contracting process
- clarity in business arrangements.

They outline:

- buyer and seller obligations
- what actions may be taken when obligations aren't met
- dispute resolution

The changes to the rules include how prices can be determined prior to delivery, after live weighing and after

slaughter; penalties for late payments; how GST is factored into the sale price; and further clarification of the consequences of default payments.

The ACTR are endorsed by the Cattle Council of Australia, Australian Lot Feeders Association, the Australian Dairy Federation, Australian Livestock and Property Agents, Grain Trade Australia and MLA.

Element of deficiency

Your pastures are productive, the parasites are under control and you're on top of genetics. But your breeding cattle aren't performing as you had hoped. What's holding them back? The answer could lie in trace element deficiencies.

Thanks to a group of Victorian producers, supported by the University of Melbourne's Mackinnon Project and

Senior Consultant Dr John Webb-Ware, there is now more information and cost-benefit analysis on treating deficiencies in the key trace elements of selenium, copper, cobalt and iodine.

In Victoria, it is selenium deficiency. The study found that 11 of the 13 farms involved were selenium deficient, while only two were copper deficient.

How can producers tell if breeders have a trace element deficiency?

There can be obvious physical or clinical signs. For example, black cattle with copper deficiency may have a rusty, red tinge to their coat or red cattle may appear sandy in colour. Other symptoms include decreased growth rates (particularly in young cattle aged 3–12 months), diarrhoea in cattle on lush pastures, skeletal defects, anaemia and infertility. It's also useful to know a property's history. If it has been selenium deficient in the past, for instance, it would be prudent to keep an eye out for symptoms such as ill thrift, stiff gait or respiratory distress. The only way to know for sure is to blood test; I would recommend this before any animals are treated.

When is it cost-effective to treat?

The difference in production after selenium supplementation of deficient stock was

substantial, with a difference in weight gain in young cattle of up to 6.4kg between May and November for weaned cattle 10–15 months of age. The benefit increased to about 9kg when the cattle were 17 months old.

Does treating selenium deficiency have any effect on fertility?

If heifers are close to their critical mating weights it can improve conception rates but, if they are well over, further improvements are unlikely.

Do high production enterprises with high fertiliser applications have less trouble with trace element deficiencies?

No, quite the opposite. Modern, intensive farming practices can exacerbate an existing selenium deficiency. For example, selenium availability is often reduced in pasture with high fertiliser application –



Clinical signs for copper deficiency include a rough coat, bronze tinged Angus colour, poor growth, and diarrhoea

Element of deficiency...continued

due to decreased concentration of selenium and reduced uptake by grazing livestock, and complex interaction with compounds such as sulphur. High levels of molybdenum and sulphur in the soil also decrease the availability of copper. Liming of the soil increases the availability of molybdenum, causing copper deficiency, as do high concentrations of iron – but without the same clinical signs of decreased growth rate and infertility.

Are there any times of the year when selenium deficiency is more prevalent?

Selenium availability is usually lowest during periods of lush pasture growth, especially in spring, so the impact of supplementation will probably be greatest at this time. Selenium and other trace nutrient status may vary between years, so monitoring should be repeated after a few

years, ideally in spring, especially where the deficiency is marginal.

What's the best way to treat selenium deficiency and how much does it cost?

All the trial sites used Deposel® as a selenium supplement in the treatment group. One property established an additional treatment group using Permatrace® capsules. Both products claim to make selenium available for up to 12 months in cattle. Deposel costs about \$1.70–\$2.30 per head for weaners, depending on their liveweight at treatment.

At current cattle prices, all trials generated growth rate responses and an impressive return on investment, with benefit-cost ratios ranging from 3:1 to 9:1. The response increased to 18:1 on one group of cattle when the trial continued to autumn when the cattle were about

18 months old. Based on a typical self-replacing herd in a high rainfall area with selenium deficiency, the beef production per hectare will increase by about 1% with the cost of production reducing by about 1%. Responses will be greater in trading herds where all cattle are young and growing.

The producers involved in this research, which also focused on anthelmintic resistance in beef cattle and the impacts of worms on production, were clients of the Mackinnon Project or were selected for their high production beef enterprises.

Mineral deficiency checklist

Clinical signs of a mineral deficiency include the following:

- Copper deficiency – Rough coat, sandy-

colour Hereford or bronze-tinged Angus, poor growth, diarrhoea.

- Selenium deficiency – Stiff-legged gait, sudden death, poor growth.
- Cobalt deficiency – Ill-thrift, emaciation.
- Phosphorus deficiency – Chewing bones, poor growth, soft bones and fractures, infertility.

John Webb-Ware. T: 0418 748 600

E: j.webbware@unimelb.edu.au

Geoff Niethe. T: 0428 712 756 E: g.niethe@bigpond.com

Read about mineral deficiencies affecting cattle, sheep and goats in Australia at www.mla.com.au/mineral-deficiencies.

Use the Cattle Diseases Guide from MLA's More Beef from Pastures on-line manual: www.mla.com.au/tool6.7_cattlediseaseguide

What is PCAS?

The Pasturefed Cattle Assurance System (PCAS) is an assurance program that enables the industry to prove claims relating to pasture fed or grass fed production methods.

On July 4, more than 600 people registered for the BeefConnect webinar Pasturefed Cattle Assurance System: What's involved?

Beef Central's Jon Condon indicated that the response

demonstrated two things:

- The enormous opportunity provided through webinars to get important information to industry stakeholders quickly, conveniently and cost-effectively; and
- The overwhelming producer interest now being shown in Cattle Council's new Pasturefed Cattle Assurance System.

With both Tey's Australia

and Atron Enterprises now offering a 20 cent per kilo premium over their MSA rates, producer interest in the program is growing at a staggering rate.

If you missed the webinar, and would like to watch it or find out more about PCAS, click here: <http://www.certifiedpasturefed.com.au/pcas-news/webinar-pcas-whats-involved>



Tools just a mouse-click away

The livestock producer's 'online toolbox' has been expanded with new and upgraded tools and calculators available on the MLA website.

MLA's Online and eLearning Project Manager Rebecca Niebler said the latest tools included new offerings such as the Breeder Mortality Calculator, as well as upgrades to existing tools, like the Rainfall to Pasture Growth Outlook tool and the Feed Demand Calculator.

"The online tools help producers use and apply the best management practices developed through MLA's research projects," Rebecca said.

"Some of the tools automate large and complex calculations, and provide visual output in terms of graphs.

"We try to update the tools with new results, and incorporate feedback from our members. Some of the upgrades are designed to make older tools more user-friendly and add new functionality."

The tools can be tried out online at www.mla.com.au/toolbox

Southern Pasture Audit Tool

The Southern Pasture Audit tool operates on a series of maps showing the geographical distribution of significant pasture species in southern Australia.

The tool enables users to select a region (based on

Statistical Local Areas) and a pasture type, so they can see the distribution of that pasture type in that area.

The Southern Pasture Audit tool was developed following a feedbase survey in NSW, Victoria, Tasmania, South Australia and southern Western Australia – an area which supports about 10 million cattle and 70 million sheep.

www.mla.com.au/southernpastures

Feed Demand Calculator Tool

The Feed Demand Calculator provides southern cattle and sheep producers with a pattern of feed supply and demand over a 12-month period, the location of feed gaps and the ways in which modifying the livestock enterprise might help to close these gaps.

This tool has been updated to incorporate new information on the contribution of forage shrubs to the feedbase.

The calculator's user manual has also been updated to reflect the tool's upgrades.

www.mla.com.au/feeddemand

Rainfall to Pasture Growth Outlook Tool

The Rainfall to Pasture Growth Outlook tool provides producers with estimates of their likely pas-

ture growth for the coming season which enables them to make improved pasture and grazing management decisions.

The tool uses historical weather information (rainfall and temperature) recorded by the Bureau of Meteorology (www.bom.gov.au) along with indices of soil moisture and pasture growth from the past nine months to generate an outlook for potential pasture growth over the next three months for over 3,300 locations across southern Australia.

Importantly, the tool displays median pasture growth indices for each week of the year based on historical rainfall and temperature records and the variation about that median point for each week of the year.

The results indicate the pattern of pasture growth for a 'moderate' year, as compared to an 'excellent' or very poor year.

The new version doesn't require users to log in if they don't want to save their favourite weather stations, but logging in now lets users save as many stations as they like. Areas can now be selected by postcode or weather station.

www.mla.com.au/rainfall-topasturetoo

Rebecca Niebler, MLA

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E: rnebler@mla.com.au

www.mla.com.au/toolbox



NSW mapping from the Southern Pasture Audit tool



Legume Rhizome Inoculation



Two recent GRDC publications highlight the advantages of inoculating legumes with rhizobia.

Researchers point out that benefits can extend beyond improved crop and pasture growth and yield, with large responses in extra N input to the farming system gained by more frequent inoculation, especially in acid soils. Inoculation is particularly important if the crop or pasture hasn't been grown in that field for 4 or more years, as rhizobia numbers in the soil will have declined.

The Guide and the Fact Sheet include information about application methods and "dos and don'ts" to maximise the chances of successful nodulation of roots by the rhizobia.

The publications are "Inoculating Legumes: a Practical Guide" found at: www.grdc.com.au/GRDC-Booklet-InoculatingLegumes

The Rhizobial inoculants Fact Sheet, found at: www.grdc.com.au/GRDC-FS-RhizobialInoculants

GRDC Research Code: UMU00032A failed inocula-

tion can be very costly and difficult to troubleshoot, so it's worthwhile paying attention to the guidelines for success.

Click here to complete the survey www.surveymonkey.com/s/QMK99LF by

Wednesday 18th September 5pm AEST.

Complete the survey & complete your address at the end of the survey to receive your FREE handbook "Inoculating Legumes: a practical guide" in the post.

Dairy Soils and Fertiliser Manual



The 'Dairy Soils and Fertiliser Manual' provides farmers and advisors with a logical planning approach and the technical knowhow to make profitable and environmentally responsible fertiliser management decisions.

The manual consists of six modules arranged in a logical order to prepare a whole-farm soil and fertiliser management plan. However, it is also designed for easy navigation from any entry point. For more information, click here: Dairy Australia

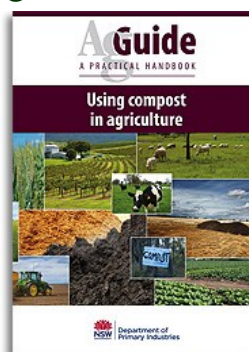
Better Soils Database

The Crop and Pasture Science journal has published a special issue featuring the results of GRDC's better fertilisers project which collated all available and statistically valid N, P, K and S response

trials for cereal, oilseed and pulse crops in Australia. The resulting database is available to grains and fertiliser industries to underpin soil test interpretation as part of fertiliser recommendations.

<http://www.publish.csiro.au/nid/40.htm>

New compost guide



Total Agricultural College has published a new Ag-Guide on compost which covers the basics of compost making, commercial composting methods, and use of compost in farming.

<http://www.dpi.nsw.gov.au/aboutus/resources/bookshop/agguide-using-compost-inagriculture>

Soil fauna role in biochar needs research

A recent review of biochar research has found that an increasing number of studies report greater C mineralisation in soils amended with biochar than in unamended soils. Soil organisms are believed to play a central role in this process, and elucidat-

ing the impacts of soil fauna directly and indirectly on biochar stability is a top research priority.

<http://onlinelibrary.wiley.com/doi/10.1111/ejss.12064/abstract>

Crop rotations enrich microbe populations

Crop rotation has a profound effect soil, enriching it with bacteria, fungi and protozoa. A UK study has found that when bacteria-dominated wheat soils were planted with oats and peas, there was a huge shift to protozoa, nematode worms and fungi. Scientists are already investigating the possibility of engineering cereal crops able to associate with the nitrogen fixing bacteria normally associated with peas.

<http://www.sciencedaily.com/releases/2013/07/130718101236.htm>

Australian Wool Innovation visual sheep scores



The latest version of the AWI visual sheep scores guide provides a common language for the visual description, recording and classing of all breeds of sheep according to important visual traits.

Using Visual Sheep Scores

This guide provides the Australian sheep industry with a common language for the visual description, recording and classing of all breeds of sheep according to important visual traits.

Visual Sheep Scores are designed for ram and commercial flock breeders that choose to class and select sheep on one or any number of visually-assessed traits as part of their overall breeding objective.

Visual scores gathered on individual sheep may be submitted to Sheep Genetics with other pedigree and performance information to

assist the sheep industry with the development of across-flock ASBVs for visually-assessed traits.

Designed for use on both male and female sheep equally, the Visual Sheep Scores provided in this guide have been divided into four sections:

1. Wool Quality traits
2. Conformation traits
3. Breech traits
4. Classer's Grade

To download a copy of the booklet click here: [Visual sheep scores booklet](#)

BestWool/BestLamb phone seminar on lice control and Ovine Johnes Disease

Jim Walsh, DEPI Veterinary Officer at Echuca, will give a refresher on the chemical options for getting rid of lice and discuss possible reasons why a treatment might not work. If you need to treat for lice, then this is about knowing what you need to use (and using it effectively) rather than

using what the retailers might want to sell you.

David Rendell, (Livestock Logic), will give an update on the current trading situation and requirements given the changes to the Ovine Johnes Disease (OJD) program.

When: **Tues. Oct 29**

Time: 8.00 - 8.30 pm

Registration: Contact Wendy Paglia on wendy.paglia@depi.vic.gov.au or 03 5731 1206

To access the notes on this phone seminar click on the following link: http://www.liceboss.com.au/files/pages/notes/Sheep_lice_treatments_chemical_group_characteristics.pdf

Coaching puts picture together

For a while there, cattle producer Michael Trewin was worried he couldn't see the forest for the trees.

He had great ideas, plenty of know-how gathered from courses such as Prograze, BeefCheque, his BetterBeef group and various healthy soil days, but putting it all

together just wasn't happening.

"Coming out of the drought, our repair and maintenance costs were through the roof. I had ideas in my head I couldn't seem to get into practice and I really felt like I needed to get a better handle on our cash flow," Michael said.

To read more, <http://www.mla.com.au/Livestock-production/Producer-case-studies/Coaching-puts-picturetogether>

MSA Index helps you hit the mark

A new MSA index will help producers understand the direct impact of genetic traits, breed composition and management on eating quality.

The index is the most accurate predictor of eating quality the industry has seen so far, and allows producers to do their own modelling, offering scope for more producers to consistently meet market specifications and increase their returns.

For more information, go to: <http://www.certifiedpasturefed.com.au/pcas-news/webinar-pcas-whats-involved>

Now showing at cinemas...



The latest Target 100 campaign will help movie goers learn more about where their food comes from and the sustainable practices employed to produce it.

A 12-month campaign was launched in July with a 60-second advertisement

screening in independent cinemas in Sydney, Melbourne and Brisbane, with a target audience of 1.5 million people.

The advertisement features four Target 100 producers from around the country explaining why they feel it is important to invest in sus-

tainable farming practices.

The advertisement invites the audience to visit the Target 100 website to learn more about the initiatives being undertaken by the industry.

See the ad at: www.youtube.com and search 'Sustainable sheep and cattle farming in Australia'.

Serving up Tastier Saltbush

New, elite lines of Old Man Saltbush are being trialled at 13 sites across Australia in a project that is set to deliver highly palatable and digestible saltbush cultivars.

Dr Hayley Norman, CSIRO, who leads the Future Farm Industries Cooperative Research Centre (FFI CRC) old man saltbush project, said the results are currently being evaluated. "The new cultivars were selected primarily for nutritive value – specifically digestibility and palatability," Hayley said. "That's what all the economic models indicated would have the biggest impact on profitability. Biomass production was third on our list but these elite lines are still eight times more productive than the average of the 'wild' material we started with. That is a real bonus."

Most of the 13 trial sites for the new cultivars are in Western Australia, but there are also sites in NSW and South Australia. In all, 8,000 individual saltbush plants were planted at the trial sites in the MLA-funded project. "Survival of the seedlings has been high at all the sites except one in

South Australia, where drought and rabbits took their toll," Hayley said. "Our aim was to have sites across a range of rainfall zones, in a variety of soil types and with different salinity levels. "Most of the initial research work has been done on three sites, but before we released any of the cultivars we wanted to put them into more challenging environments to make sure they weren't 'princesses' – we want cultivars that live up to our expectations in the real world."

We want them to be at least as tough as those that local nurseries have been selecting for a long time, but with the extra benefit of higher nutritive value."

The researchers are assessing the trial site results ahead of making decisions about which cultivars will be commercialised.

Future Farm Industries CRC is developing a commercialisation strategy, in conjunction with various local nurseries.

As yet, no decisions have been made as to how many

clonal lines will be released, but the plan is to have the first of the new cultivars released ready for planting in 2014.

"It may be that there's one standout, or it may be that a few cultivars present themselves as being best for particular conditions," Hayley said. "We don't see the new cultivars taking over completely in any single planting."

I certainly don't want to see people planting great monocultures of only one cultivar. But, by incorporating the new line or lines into plantings, the overall nutritive value of grazing those saltbush areas should increase, which will improve livestock productivity."

Old man saltbush has already proven to be a useful additional forage for sheep, particularly during the summer/autumn feed gap. It provides a green food source when other feed is limited and also provides good quantities of minerals, vitamin E, protein and sulphur.



"These elite lines are eight times more productive than the average of the 'wild' material we started with."

Dr Hayley Norman, CSIRO

Getting the most from Saltbush

Use it or lose it

You can't 'save it up' from one year to the next. Saltbush will drop leaves in autumn if it gets water stressed. Shrubs need to be kept grazed to keep the leaves within easy reach for the sheep.

Spend more money on the 'better' land

Old man saltbush alone does not produce enough biomass and is too salty to be the whole diet – the understorey is critical to profitability.

Supplement or complement

Sheep can't maintain

liveweight by saltbush alone; they need extra food sources to supplement their energy requirements. They also need some low-salt feed to complement their diets. Saltbush should only form about 30–40% of the total diet.

Provide good, easily accessible water

Dried saltbush leaves are one quarter salt and sheep can't eat salty food unless they can drink water. A sheep on saltbush will drink as much as 10 litres of water per day.

Think about the water supply and the temperature of the water at the watering point – water that travels through black poly pipe on the soil surface to get to a trough can be too hot for sheep to drink on a hot day.

Watch your lambing ewes carefully

They need supplementary energy when grazing saltbush. Mineral imbalances may cause problems and for ewes this can include calcium deficiency.



WMLIG member Neil Madly watering elite lines of saltbush planted at the local property "Craiglee" in June 2012.

Brolga Habitat Guide



The Murray Catchment Management Authority has just released a new guide for Brolgas called Brolga Breeding Habitat—Managing Wetlands On Your Farm.



The Brolga Habitat Guide was prepared several years ago to help land managers support this vulnerable species by implementing a range of management practices around their wetlands.

Tech Note:

The Brolga is an iconic wetland bird found in the Riverina. The Riverina group of Northern Victoria and southern NSW supports fewer than 250 birds and is listed as vulnerable in Vic. And NSW. Breeding pairs are thought to partner for life and likely can live for more than 50 years in the wild.



Managing your wetland for Brolgas

Brolgas rely on shallow (ave. @30cm deep) ephemeral wetland areas for breeding. In the Riverina, breeding occurs between July and December in response to winter/spring rainfall.

The wetland vegetation in Brolga breeding wetlands is rarely over 100cm in height. If tall vegetation or trees are present, they are widely spaced or very patchy, allowing Brolgas to maintain a panoramic view of their surrounds.

The NSW Murray Wetlands Working Group, together with Murray Irrigation Limited and numerous landholders have been instrumental in helping to restore wetlands in the NSW Murray catchment. The watering private property wetlands

project has flooded wetlands on over 100 farms since the project began in 2001. The response of waterbirds (including Brolgas) has been phenomenal.

Grazing and Fire Regimes

The vast majority of Brolga Breeding sites are on private land and are subject to grazing by sheep or cattle. Avoiding set stocking rates and allowing the area to be periodically rested are important general rules for wetland management. Excluding stock when the wetland is flooded will give waterplants the best chance to flourish and set seed.

Canegrass and Cumbungi can form tall, thick stands. They are sometimes burnt to promote grazing value by encouraging new, succulent shoots that are palatable to stock. Such management can be beneficial to Brolgas.

Murrakool Land for Wildlife Bird Brochure Released - "Woodland Birds of the Wakool Shire"



Murrakool Land for Wildlife has recently released a bird guide on woodland birds in the Wakool Shire.

The guide is designed to fit in the glove box of your car so it can be readily accessed to assist in identification of local species.

The guide provides a map of the area and some photos of different habitat types that typically support good populations of birds featured in the pamphlet.

The bird identification guide includes a status symbol on

whether a species is a permanent resident, seasonal, local or international migrant, occasional or irregular visitor or an introduced species.

The other status symbol provided is of species abundance which ranges from common to very rare. This is a subjective category based on experience in the area of probability of occurrence by the authors.

The guide costs \$3.00 and is available for purchase at the Barham Show on Saturday 19th October.

The guide can also be purchased from the Barham Newsagency and the Wakool Shire Offices., and most other towns in the Wakool Shire.

Proceeds from the sale of the guides will be used to produce another wildlife identification guide for the area.

Land for Wildlife is a voluntary property registration scheme that encourages and supports landholders to manage areas of their land for wildlife habitat. Contact Pam O'Neill on (03) 5453 2435 if you are interested in joining.

Murrakool Land for Wildlife Photo Competition Entries

Murrakool Land for Wildlife photo competition "Peoples Choice Award for Photo of the Year" was won by Jill Hooper after public voting was completed at the Barham Show on Saturday the 17th October. Well done Jill on the Velvet Ant photo and the \$150.00 prize is on its way.

A close second in the voting for the \$75.00 prize was Michelle Morton for the Major Mitchell Cockatoo photo. Equal third place went to Faye O'Brien and Elizabeth Kaylock, who will receive a book.

Congratulations to the prize-

winners and thanks to all the other participants for the entries this year.

The monthly photo for the theme of "fungi" was won by Michelle Morton in this edition.

The photo competition contin-

ues as it is great to see photos capturing the diversity of flora and fauna in our back yard (and it makes the newsletter a bit more interesting). The winners receive a flora or fauna book as a prize.

Send your photo's in to email: roger.knight@wmlig.org



The winning photo of a Velvet Ant (actually a wasp).
Photo: Jill Hooper



Major Mitchell. Photo: Michelle Morton



Barn Owl. Photo: Faye O'Brien



Long Necked Turtle. photo: Elizabeth Kaylock



Plumed Whistle Ducks Tooleybuc area. Photo: Michelle Morton



Nankeen Kestrel in hole: Michelle Morton



Wren getting breeding plumage:
Michelle Morton



Welcome Swallow. Photo: Michelle Morton



Wedgetail Eagle: Michelle Morton



Wedgetail Eagle: Michelle Morton

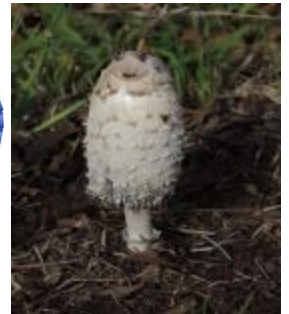
Murrakool Land for Wildlife Photo Competition Entries



Purple Daisy: Michelle Morton



Liverwort. Photo: Michelle Morton



Fungi. Photo by Michelle Morton



Redgum wetland. photo: Jan Thomas



Wildflowers in bloom after good spring: Photo: Jan Thomas



Cattle grazing in paddock dispersed with blackbox. Photo: Jan Thomas

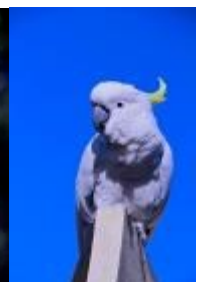


Eastern Swamp Hen Chick Lake Poomah, Koraleigh. photo: Greg Ogle



Grey Thrush Chicks. photo: Greg Ogle

Sulphur Crested Cockatoo photo compilation by Elizabeth Kaylock



Murrakool Land for Wildlife Photo Competition Entries



Goana Photo by Michelle Morton



Barking Gecko. photo: Michelle Morton



Feeding Darter. Photo: Michelle Morton



Purple Swamphen. photo: Elizabeth Kaylock



Baillons Crake. photo: Michelle Morton



B. photo: Michelle Morton



Curl Snake. Photo by Michelle Morton



Giant Banjo Frog. photo: Elizabeth Kaylock



Southern Whiteface. photo: Michelle Morton



Bluefaced Honeyeater: Michelle Morton



Major Mitchell Cockatoo. Photo: Michelle Morton



Nankeen Kestrel: Michelle Morton

NSW Environmental Restoration & Rehabilitation Program - Call for applications

Grants of \$5,000 to \$100,000 available to:

Community organisations and non-profit associations (total program \$2,000,000)

State and local government organisations (not schools) (total program \$2,000,000)

Applications open 21 September 2013 and close on 31 October 2013

Application Forms

Guidelines, application forms and more information will be available on the Environmental Trust website:

www.environment.nsw.gov.au/

[grants/restoration.htm](http://www.environment.nsw.gov.au/grants/restoration.htm)

Contact the Trust

For further information about the above grant programs please contact the Trust on 02 8837 6093 or email info@environmentaltrust.nsw.gov.au

2014 Science and Innovation Awards

Grant applications are now open for the 2014 Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry.

It is an opportunity for Australians aged 18-35 to apply for a grant of up to \$22,000 to fund their project on an innovative or emerging scientific issue that

aims to benefit Australia's primary industries.

There are eleven industry Science Award categories open for applications: biosecurity, cotton, dairy, fisheries and aquaculture, grains, viticulture and oenology, red meat processing, pork, new and emerging rural industries, meat and livestock and wool.

Applications for the 2014 Science and Innovation Awards close on Friday 8 November 2013. For further information and application forms visit the website or email scienceawards@daff.gov.au

NEWS AND RESOURCES

FOOD

Symposium on supermarket

The University of Melbourne Law School held a symposium in August to consider supermarket influence over ways in which food is produced, distributed and consumed in Australia. Symposium papers are available online.

<http://law.unimelb.edu.au/cen/news-and-events/supermarket-power-symposium/>

Food security and agriculture forum

Charles Sturt University held a public forum on food security last month. The four presentations included discussion of climate change impacts and rural health.

<http://news.csu.edu.au/director/latestnews.cfm?item-ID=80313AB40D535F97AD42245C1B26385A>

New agrifood systems course

UNE and TAFE New England have launched a new course, Bachelor of Agrifood Systems which combines vocational training in farm management with UNE units to produce 'hands on' graduates who can apply the latest practices in agricultural science and technology.

<http://www.une.edu.au/future-students/dual-sector/agrifoods.php>



WMLIG Mission Statement:

"Promote sustainable farm and land management practices to enhance our unique natural environment through innovation, education and strong community networks".



Photo of the Western Murray Land Improvement Group Office in the Barham Rest Centre. Call in if you or your group needs a hand with an application or NRM / sustainable agriculture related information.

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Dates to Remember;

- Tuesday 29th October 8pm , BestWool BestLamb phone seminar on lice control and Ovine Johns Disease.
- Wednesday, 30th October 9am, Profitable Sheep Nutrition and Management, RSL Conference Room Hay.
- Thursday, 14th November, Chicks in the Sticks, Cohuna.



Catchment Management
Authority
Murray



CARING
FOR
OUR
COUNTRY