

Innovative Farming

Productive farming for a variable water future



NEWSLETTER- JULY 2012

Welcome...

...to the third edition of the North Central Catchment Management Authority's (CMA's) **Innovative Farming Program** newsletter.

Included in this edition of the Innovative Farming newsletter:

- Links to speaker presentations at Innovative Farming events now on YouTube
- Recap of the 'Untapped Paddock Potential' forum
- Forage shrub trial results
- Case study- Looking for alternative enterprises Innovative Farming Implementation Plan progress
- Upcoming Farm Walk events

As this newsletter is being written we are in the planning process for more events such as field days and farm walks.

Future events will be emailed to you and advertised around your area so keep an eye out for more information.

If you have suggestions for any type of future event please feel free to forward them onto North Central CMA project staff.

To do this or, to join our newsletter mailing list, contact us via info@nccma.vic.gov.au or call (03) 5448 7124.

Enjoy reading this edition!

'Untapped Paddock Potential' Forum- Boort

On a rainy 25th of May the 'Untapped Paddock Potential' forum was held at the Boort Football Club clubrooms. Overall 35 attendees heard and learnt from the following speakers:

Bill Twigg - experiences from farming in the Loddon Plains

Elise Wenden - a fresh approach to farming - *an introduction into Biological Farming*

Robyn Vella - Farm tourism opportunities and Shire support

Marilyn Lanyon - Local farming experience on 'how to jump off the merry-go-round'



Above: Speakers (left-right) Bill Twigg, Elise Wenden, Robyn Vella and Marilyn Lanyon



On-line presentations

Did you miss out on the 'Untapped Paddock Potential' Forum in Boort or are you interested in what was spoken about? We now have the presentations from the guest speakers on YouTube. You can find the presentations from Elise Wenden, Bill Twigg and Robyn Vella through accessing our new-look website www.nccma.vic.gov.au

Forage Shrubs Trial results

This article has been provided by Dr Jason Emms, Senior Research Officer - Enrich: Multi-purpose 'healthy' grazing systems using perennial shrubs. Future Farm Industries CRC SARDI.

Key points:

- Perennial Australian shrubs, grown in a mixture, could provide out-of-season feed, contribute to protein and mineral nutrition, improve digestive efficiency, contribute to protein and even help control gut parasites
- Perennial shrubs offer many benefits given appropriate grazing management
- Local trial site- 15 shrub varieties trialled
- Animal grazing preferences can be changed.
- Early-life experiences are important eg. feeding ewes saltbush during pregnancy affects their offspring (as lambs and as weaners) in many ways.

Perennial Australian shrubs, grown in a mixture, could provide out-of-season feed; contribute to protein and mineral nutrition; improve digestive

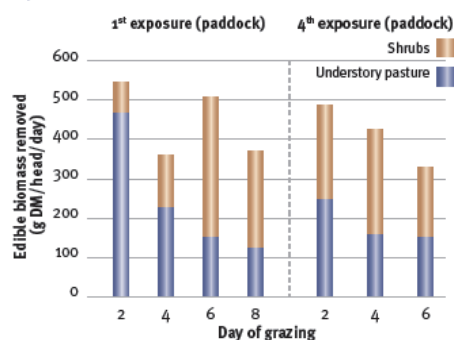
efficiency; contribute to protein and even help control gut parasites. 'Enrich' a project supported by the Future Farm Industries CRC and Meat & Livestock Australia is exploring the benefits of incorporating forage shrubs into mixed farming systems.

A trial site at Marnoo was established in 2008 by the North Central CMA. A total of 15 shrub species were selected for their suitability to each area and were monitored for shrub survival, growth and performance under grazing by sheep.

Whilst perennial shrubs offer many benefits, these will not be realised without implementing appropriate grazing management. A few key issues are listed below which need to be considered when grazing shrub-based systems.

1. The best way to ensure grazing livestock access the full suite of macronutrients, micronutrients and extra-nutrients is to provide plant diversity and provide animals with the opportunity to develop experiences with all the plants. **Not all plants have to be consumed in large amounts to make a positive contribution to a grazing system.** When given the opportunity, animals usually select a large number of plant species in their diet even though the bulk may be provided by a small number of species.

Change in grazing preferences between shrubs and inter-row pasture due to repeated exposure. Hay was provided *ad libitum*.



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2. Recent experiments have shown the power of animal selectivity; with feeds ranging from hays, to annual pastures, to perennial shrubs. **Our attempts at predicting animal preferences are not always very impressive, so be careful with second guessing what your animals will do.** And whilst animal preferences can give us some clues on what to include in the smorgasbord, remember that preferences can change. For example, we have shown that animals will adapt from eating annual pasture and shrubs in a ratio of 80:20, to a mix of 50:50 as they gain experience of the mixture on offer.

3. Early-life experiences are important. For example, feeding ewes saltbush during pregnancy affects their offspring (as lambs and as weaners) in ways ranging from kidney structure, hormone levels, gene expression, salt excretion and water intake, through to diet selection and liveweight gain. **Pre-natal programming provides a way for animals to physiologically adapt to the world that they may encounter.** But animals are not locked into dealing with the world by events they experience pre-natally. Post-natal experiences provide behavioural adaptation, ultimately influencing how animals perform.

4. **Animals change where they go and what they eat depending on what other animals are doing.** We've used this knowledge to influence grazing behaviour of cattle that were re-located from a southern pastoral property to a northern agricultural property in Western Australia.

A handbook '*Perennial forage shrubs providing profitable and sustainable grazing- Key practical findings from the Enrich project*' is currently available to livestock producers who wish to learn more about perennial shrubs and how they might fit into their whole farm system.

www.futurefarmonline.com.au/LiteratureRetrieve.aspx?ID=88398



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Case Study – Looking for alternative enterprises

Summary: Irrigated cropping and horticulture farm looking to diversify with other enterprises

Location: Pyramid Hill

How the farm has changed

Sue and Brian own approximately 1,100 ha near Pyramid Hill and lease about 240 ha from their neighbour. The property is split across four blocks. The home block includes 10 ha of organic apple orchard planted in 1997.

In the past Brian and Sue ran about 2,000 sheep, however, they now focus on cropping barley, wheat, canola, faba beans and oats over the bulk of the farm. They have a 1,500 ML permanent water entitlement and temporary trade water depending on the price. When irrigation water is available, Brian and Sue use the water to finish off the crops (at about 2.5 ML/ha).

During the drought years, Sue and Brian didn't irrigate their crops because of the low water availability. This resulted in poor yields.

They are in a secure position regarding their equity, but want to challenge themselves by growing the business and achieving a return. They are actively looking for alternative enterprises in which to expand the business.

Exploring the options

The couple is exploring a range of options for new enterprises on the farm. This includes returning to sheep for meat production; something Brian is not particularly keen about. They have considered the Dorper breed as one option.

Through the local council Sue and Brian have spoken to representatives from the poultry industry about opportunities for establishing a poultry processing operation including organic, free-range egg production. This would involve a closed system



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where the chickens would be bred, incubated, grown out and slaughtered.

Brian and Sue have also considered native pastures and have been to field days held by the North Central CMA.

Given their orchard is a productive part of the farm business, they have thought about value adding by drying some of their apples and selling them direct to market or grading and marketing fresh fruit direct to the public.

“Value adding is where your margin improves”.

Sue and Brian are openly seeking other opportunities for new enterprises on their farm. Finding an alternative enterprise to incorporate into the farm system has been a challenge.

Making the decision about alternative enterprises

In exploring the above options they have considered what changes would be required on farm to incorporate new enterprises; what additional information they would need to find and whether they would need to expand their skill base.

They have not managed sheep for some time and while they have some infrastructure, it would need additional work. This includes fencing to make smaller and more manageable paddocks and upgrading yards and the shearing shed including connecting power.

A conventional chicken farm would involve a \$1.3 million capital investment to set up the necessary infrastructure. The organic, free-range enterprise would be a much smaller investment considering it would involve 5,000 birds compared to 30,000 birds.

Irrigated pasture would be needed to feed the chickens. The opportunity to enter this industry is also dependent on other growers, with seven needed to provide the critical mass for industry investment in the region.

While they have found past field days useful, the couple are interested in the economic analyses associated with native grasses and the impact on

farm production. Brian and Sue would be keen to understand the productive value before considering native grasses further.

Value adding to their apple production would also require the couple to expand their skills in sales and marketing.

There are many factors to consider in making the decision to adopt a new enterprise. This makes it a detailed and lengthy process.



Above: Organic apples from the orchard

Other information needs

Sue and Brian like to keep abreast of the latest technology and innovations in farming. They are interested in variations to cropping (including intercropping and grid cropping) they have heard of through the Birchip Cropping Group and from trials in Western Australia. The couple would like to see this information provided in the region and tested for local conditions.

Dryland versus irrigation decisions

Brian and Sue are yet to have discussions with the Northern Victoria Irrigation Renewal Project (NVIRP). This has caused a delay in their decision-making. They are unsure where the irrigation backbone will be and which blocks will remain connected to the irrigation system.

Until these discussions have been held, they are reluctant to invest in some of their blocks in case the land is disconnected. Infrastructure has not been upgraded and maintained as necessary due to the lack of confidence in the possible connections of



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properties to the backbone and the ultimate profitability of irrigated crops in this region. This has partly led to poor yields, especially when added to the mice plague and floods, which impacted on the crops greatly.

If required they will temporarily trade water in to finish their crops. Brian has identified that at \$100/ML they can apply irrigation to winter crops at 2.5ML/ha and still be profitable if producing 1 tonne/ML.

Because Sue and Brian are yet to disconnect any of their irrigation, they have not incurred any transition costs associated with converting irrigation paddocks to dryland paddocks.



Above: A crop on the Pyramid Hill property

How dryland farming changes profitability

Due to the lack of water and irrigation on the farm in recent years, the business made profits by selling temporary water. However they are now in a loss-making situation because of poor yields and low prices for their irrigated crops. Sue and Brian are keen to help the business recover and move into the post-drought phase by exploring the options for new enterprises.

Implementation Plan Update

The availability, reliability and security of irrigation water for agriculture is changing land and water management across northern Victoria. Due to a decade of dry seasonal conditions, record flood events and water reform, this change is occurring at a scale and pace never seen before. Planned modernisation of on-farm and irrigation delivery systems as well as the implementation of the Murray-Darling Basin Plan will continue to influence management options and decisions.

As part of the Innovative Farming Program the North Central CMA together with a project team of regional organisations has taken up the challenge to identify and take advantage of new opportunities and successfully manage current and future risks of land and water use across the Loddon, Gannawarra and Campaspe Local Government areas.

Work completed through the project (including impact and risk assessment; land use options assessment and survey of landholder intentions to connect to a modernised irrigation delivery system) has shown livelihoods, jobs, lifestyles, and regional economies are particularly vulnerable to a reduction in the availability of water for irrigation.

The project team are currently consulting with community, industry and government stakeholders across the project to seek feedback on the issues, risks and most importantly, the opportunities that you believe are needed to support farming and the region into the future. This feedback will be combined with project work completed to date and used to develop an Implementation Plan to guide the transition in land and water use. The Implementation Plan will complement existing works and measures occurring across the project area, especially irrigation modernisation and will provide opportunities for innovative responses to manage change.

For the Implementation Plan to be a success, it will need to present realistic options, clear justification, reasonable time frames, roles and responsibilities and identification of the public-private investment required to support these opportunities. It will also



need to be based on local knowledge and experience.

The consortium is seeking your opinion and feedback on the issues, risks and importantly, the opportunities that you regard as important to support farming and the region more broadly into the future. Should you wish to learn more about the project or share your opinions on future land and water use across the Loddon-Campaspe Irrigation Region, please contact the North Central CMA on 5448 7124 or info@nccma.vic.gov.au.

What's next?

A draft of the Implementation Plan will be developed during July 2012 and considered by the project team with input from interested community members. The final version of the Innovative Farming Implementation Plan is due to be with the project investors, Department of Sustainability, Environment, Water, Populations and Communities in Canberra by 31 August 2012.

Farm Walks

You are invited to attend the Innovative Farming Program's 'Winter Farm Walk Series'. The farm walks will be conducted over 3 days (24, 26 & 27 July).

The farm walks have been designed as an opportunity to visit local farms, talk to farmers and see firsthand what farming options and practices are being adopted across the region.

All 3 farmers who have generously offered to volunteer their knowledge and access to their properties for the day have spoken at previous Innovative Farming events.

Details of the farm walks are as below and each event concludes with a free BBQ lunch.

DATE: Tuesday 24 July 2012

TOPIC: *Profiting from dry land management on an irrigation farm*

WHERE: Colin Myers property- Kerang

TIME: 10.30am – 1.00pm

DATE: Thursday 26 July 2012

TOPIC: *Progress of trial sites - native grasses, sandalwood and profit from biodiversity*

EXTRA: *Ben Boxshall from Spicatum Resources Australia will be on site to answer all your questions relating to incorporating sandalwood into biodiversity in Northern Victoria*

WHERE: Tim Barden's property - Echuca West

TIME: 10.30am – 1.00pm

DATE: Friday 27 July 2012

TOPIC: *Dollars from Farm Trees - lambs, flora culture, shelter, and fencing materials*

WHERE: John Toll's property – Gunbower

TIME: 10.30am – 1.00pm

Scott McGillivray from Central Victorian Exporters Network will be in attendance to answer questions on potential and realistic farming export opportunities. Scott has worked across a number of industry sectors and has been successful in developing business opportunities for a wide range of regional industries.

Damian Jones, an agronomist from the Department of Primary Industries- Kerang, will also be in attendance at all 3 farm walks to answer any questions that you may have.

Please RSVP for site details (including maps) and catering purposes by Monday 23 July 2012. Phone the North Central CMA on 03 5448 7124.



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FARM WALK SERIES



FREE FARM WALKS

Come along and discuss different farming options with local farmers. See for yourself what techniques work on their property.



Scott McGillivray from Central Victorian Exporters Network and Damian Jones, Department of Primary Industries (DPI) Victoria agronomist will be at each site for discussion and in-depth analysis.

WINTER FARM WALK PROGRAM

Tuesday 24 July **Colin Myers - Kerang**

Profiting from dry land management on an irrigation farm

Thursday 26 July **Tim Barden - Echuca West**

Progress of trial sites - native grasses, sandalwood, profit from biodiversity and agro-forestry

Friday 27 July **John Toll - Gunbower**

\$'s from Farm Trees - lambs, flora culture, shelter, and fencing materials

**Each day starts at 10.30am – 1.00pm
followed by a Free BBQ lunch**

**RSVP for site details and catering purposes by Monday 23 July 2012,
phone the North Central CMA on 03 5448 7124.**

www.nccma.vic.gov.au



This project is supported by the North Central Catchment Management Authority (CMA), through funding from the Australian Government's Caring for our Country initiative.



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DETAILS



Colin Myers – Tuesday 24 July, Kerang

Colin Myers purchased his property from his father, which consisted of very marginal land with large amounts of soil salinity. Over the years the property has been extensively used for cropping, mixed grazing and vegetable growing.

Carefully managed stocking rates and grazing management has led to successful establishment and utilisation of native grasses and shrubs on Colin's property. The decision to dramatically reduce irrigation on the property occurred in the early 1990's. The decision came easily based on increasing costs and other difficulties, combined with reduced commodity prices.

Although a reduction in carrying capacity (approximately 400-500 ewes) Colin now sees 80% of income going into his back pocket rather than to costs. While irrigation is still possible (1996 was the last event); it is Colin's approach to flexible farming that is paying dividends.

Tim Barden - Ko Warra Native Grasses – Thursday 26 July, Echuca

This farm walk will include visits to three on-farm demonstration sites including; a sandalwood trial incorporating value adding through biodiversity plantings and remnant protection, farm forestry and native grass production sites. This will provide farmers with plenty of opportunity for further questioning and discussion.



John Toll – Circle T – Friday 27 July, Gunbower

John and his brother Greg, along with their partners, own a property near Gunbower on the fringe of the Patho Plains. The property consists of approximately 2,000 acres of irrigation and 600 acres of dryland agriculture which supports 1,000 breeding sheep, agistment and hay and grain production. John has planted many 1,000's of trees over the years and is keen to demonstrate the benefits that farm trees have made to his property, productivity and life in general.

Scott McGillivray- Central Victorian Exporters Network - each day

Also attending the Farm Walk events is Scott McGillivray who is Austrade's regional export adviser and one of the Central Victorian Export Networks International Trade advisers.

Scott has worked across a number of industry sectors and has been successful in developing business opportunities for a wide range of regional industries. He is here to support the development of your business ideas which extend beyond the Australian domestic market. To assist you to develop plans, access market research and validate a potential business opportunity.

Scott's engagement is being supported by Austrade and the Campaspe Council so while he is here, see what sort of ideas you can bounce around and then seek his organisation's ongoing support to develop your program into a profitable business opportunity.

