

Networking for small farms

SMALL farms are at the forefront of agricultural innovation, and are some of the most important and involved managers of our natural resources (soil, water and biodiversity).

They are well placed to supply Australia's growing demand for ecologically-friendly food, and grow rare and heritage animal breeds and plant cultivars that support the genetic resilience of Australian agriculture, and by extension, regional economies.

Over 537,500ha in south coast New South Wales and Australian Capital Territory is managed in small lots of 1-40ha, by land managers who have a thirst for agricultural and environmental best practice information.

The Small Farms Network received a \$47,700 Sustainable Agriculture Small Grant from

the Department of Agriculture and Water Resources to hold 16 workshops across the Bungendore and Berry regions.

These workshops, attracting 492 local farmers, focussed on issues identified by the local land holders, including pasture management and monitoring, bee keeping, weed management, animal management and biosecurity, strategic land planning, fencing, dung beetles and healthy soils.

The Small Farms Network also conducted soil tests, and developed an online interactive information hub for farmers to access up-to-date sustainable management information, techniques and ideas, as well as opportunities to network, get in contact with farmers, and strengthen this small farming community.

This grant enabled landholders to make better informed decisions about managing fertiliser and herbicide use, reducing waste of labour and money, while minimising pollution to waterways from runoff.

The community-based learnings provided through Small Grants has also assisted in community-building, and increased farmer-to-farmer skill sharing.

"Having not long been in the area we had no contacts and no one to ask for advice," a participant of the workshops said.

"I believe we are better carers of the land and it has increased my enthusiasm to improve the environment.

"Caring for the land seems too hard when you have little or no knowledge, having a place to go to learn makes it so much easier."



Participants at a Sheep Husbandry For Small Farms field day in Hall, ACT.

Digging in: Tackling Australia's soil challenge



Ameliorating acid soils with lime - 91.44 cm offset disc plough used to incorporate lime into acid soils. Source: Project SGR1-0504, 2017.

IT IS fairly well known that by world standards, Australia's soil is old, infertile and we don't have a lot of it.

This presents a range of challenges to farmers and land managers going into the future.

However, Australia is also great at making the best of what we do have,

using farming innovation and best practice land management to care for our ancient land.

The Australian government invests in a range of programs to help farmers build profitability, better manage for climate variability, and contribute to improved soil quality.

Some examples of this investment include:

- Smart Farms Program - \$134 million over the next six years will be invested to develop innovative approaches to protecting Australia's on-farm soil, water, vegetation and biodiversity resources.

- Regional Land Partnerships - \$450 million investment will continue the legacy of Landcare by concentrating on projects that improve the health of soils on farms.
- Soil research - the Rural Research and Development for Profit Program is investing around \$23.5 million in projects aimed at improving soil management.

In 2017, the Australian government established a Cooperative Research Centre for High Performance Soil with an initial investment of \$39.5 million over 10 years to help bridge the gap between soil science and farm management.

With 39 participants that have contributed further cash or in-kind contributions of at least \$120 million, the Soil CRC is the biggest collaborative soil research effort in Australia's history.

The Soil CRC coordinates multi-disciplinary research across a range of areas including social science, economics, biology, chemistry, agronomy and soil science.

Further information on this collaborative research effort can be found at www.soilcra.com.au.

The Australian government also appointed Major General the Hon Michael Jeffery as a national Advocate for Soil Health (2012 - 2017) to provide strong leadership and advocacy on the importance of healthy soil, water and vegetation, and the underlying benefits for all Australians.

The Department of Agriculture and Water Resources is coordinating the Australian government's response to his final report, handed to the Prime Minister in December 2017.

Stay tuned in the soil space because Soil Science Australia is hosting the 2018 National Soils Conference, in Canberra from November 18-23, 2018.

The conference will address some of the key challenges for sustainable soil management, exploring lessons from the past, reflecting on the present and developing concrete plans and goals for the future.

- Visit: www.soilscienceconference.org.au.

Smarter farming kind to nature

SUCCESSFUL applicants for the Australian government's Smart Farms Small Grants program will be announced shortly, offering grants of \$5000 to \$100,000 for projects that reduce pressures on natural resources.

The funds help support on-ground projects delivered by local Landcare and community groups, as well as larger farming systems groups and Indigenous organisations, working to improve agricultural land and water resource condition.

The grants aim to encourage agricultural industries to adopt the use of innovative tools, technologies and land management practices to help reduce pressures on Australia's

natural resources while increasing industry productivity and profitability.

Smart Farms Small Grants is an open competitive grants program aimed at local and regional organisations with funding of \$50 million to be allocated across six grant rounds. The grants were launched in October 2017 and will continue through to 2022-23.

The first round of grants attracted applications from across Australia, addressing a range of natural resource management issues including the improvement of soil and vegetation conditions, pest control, climate change market traceability and management, and adoption of new technologies.

These submissions represented a variety of Australian agricultural systems including cropping, livestock, mixed farming, rangelands, marine, horticulture and sugar.

Successful round one projects will provide applicants with real opportunities to help protect Australia's biodiversity and enhance soil health and vegetation management.

The next round of grants, offered in collaboration with the National Landcare Program, will open before the end of 2018.

For updates and more information on the Smart Farms Program, please visit the National Landcare Program website nrm.gov.au.

Funding boost for farmers doing it tough

FARMERS in financial stress don't need to tough it out - the Australian government can help through the Rural Financial Counselling Service (RFCS).

The RFCS assists 4,500 farmers on average a year, offering personalised agri-business expertise to deal with hardship.

The RFCS helps clients identify options and maximise the value of their assets.

This is a confidential, independent, mobile service with no cost to the client.

With 12 service providers across Australia, the RFCS employs rural financial counsellors who help

farmers make the right decision for their business in times of changing markets, unpredictable climate and regulatory changes.

This includes identifying business options, negotiating with lenders, disaster recovery, building financial capacity, business transition and access to the Farm Household Allowance.

Rural financial counsellors also provide referrals to professionals for succession planning, family mediation and personal, emotional and social counselling.

- Visit: agriculture.gov.au/rfcs or contact: 1800 686 175.

Our farming future

By Minister for Agriculture and Water Resources, David Littleproud MP

IN MY short time as Minister for Agriculture and Water Resources, I have kicked the dirt with as many of our farmers as possible.

What comes up day after day is farmers care about their produce and they care about the land.

I care about both of those things too.

I have been passionate about Landcare for many years.

For farming families, our land is our legacy.

After all, the land is what we leave to our children and grandchildren.

I think all farming families want to pass on land with healthy soils, healthy air and clean water.

The support Landcare gets from the farming community illustrates this belief.

Landcare unites farmers from across all commodities and regions.

Australian farmers are among the most productive and efficient in the world.

We also farm more sustainably than just about any country on earth, and our clean green image is already paying off as it helps us send our food all over the planet.

In future decades, I predict our clean green way of farming will pay off even more as markets all over the world open up and demand clean, green Aussie produce.

The Coalition government is investing more than \$1 billion in Landcare over five years to protect the natural resources that underpin the sustainability and productivity of our agriculture, fisheries and forestry.

This includes programs to help our farmers to farm smarter, not harder, and deliver the sustainably produced food and

fibre consumers want and markets increasingly demand.

These programs include the \$450 million Regional Land Partnerships, as well as the \$134 million Smart Farms program.

The Smart Farms grants will focus on protecting Australia's natural resources of soils, water, vegetation and biodiversity through more sustainable agricultural practices.

We are going to build on the experience of more than 30 years of Landcare to continue to engage with local communities to deliver national Landcare priorities on-the-ground.

We want to be using world's-best practice to help our farmers do what comes naturally to them — caring for the land.

Landcare will continue to deliver the results that have made this movement such an iconic part of many rural and regional communities.



Minister for Agriculture and Water Resources, David Littleproud MP.

Save the date! Coming together for Landcare



Landcare Australia CEO, Tessa Matykiewicz.

By Landcare Australia CEO, Tessa Matykiewicz

AFTER five years of service to the community in the position of chief executive officer of Landcare Australia, I have decided to leave the organisation to pursue other ambitions.

It was a great honour to serve the Landcare community.

This was not an easy decision to come to, but I have every confidence that the organisation will thrive under new leadership.

I am handing the reins over to the very capable hands of Dr Shane Norrish, who has been with Landcare Australia for more than 10 years as head of Landcare services, and is now transitioning into the CEO role.

I have every confidence in Shane's ability to lead this organisation and continue to serve the community.

My team at Landcare Australia have been an enormous support to me, and any achievements have come as a result of their dedication to the organisation.

I will always feel honoured for the opportunity to be associated with Landcare, Landcarers everywhere, my team and board.

I would also like to acknowledge Hume Macdonald, a member of the Landcare Australia board between 1997 and 2015 who recently passed away.

Hume was an active member of the Landcare community in South Australia and he will be deeply missed.

As I depart, I am very pleased to share that the upcoming biennial National Landcare Conference will be held this year at the Brisbane Convention and Exhibition Centre on October 10-12.

Save the date! The Landcare Australia team is excited to be bringing this Landcare

knowledge sharing event to Queensland.

In addition, all 65 winners from 2017's State and Territory Landcare Awards will be representing their respective states at the National Landcare Awards gala dinner on October 11 at the same venue.

All Landcarers will have an opportunity to throw support behind who they think made the most extraordinary contribution over the last couple of years by voting in the People's Choice Award category.

Check out www.nationallandcareconference.org.au to cast your vote.

It has been incredibly rewarding to witness and participate in the amazing work that's been done by thousands of volunteers across the country over the last five years.

The spirit and dedication of the community is something that will always inspire me, wherever I go.

2018 NATIONAL LANDCARE CONFERENCE AND AWARDS

REGISTER NOW

10 – 12 October 2018
Brisbane Convention & Exhibition Centre
www.nationallandcareconference.org.au

Proudly supported by



National Landcare Program



Grazing for Gliders protecting endangered gliding possum

A RARE gliding possum has become the catalyst to improve grazing practices in the wet tropics region of Queensland.

Landholders are working to better protect the endangered mahogany glider through the Grazing for Gliders program that began last year and has led to both revegetation and holistic grazing initiatives in critical glider habitat.

Terrain NRM community partnerships officer Jacqui Richards said it was a 'win-win' for the environment and graziers.

Farmers are developing projects unique to their properties following a series of workshops and farm visits covering everything from soil biology and planned rotational grazing to wildlife-friendly fencing.

The program is funded through a Targeted Threatened Species Project grant from the Australian government and delivered by Terrain NRM with support from the Mahogany Glider Recovery Team.

Graziers Justine Douglas and Rusty Smith said living in mahogany glider-habitat had been a drawcard when they bought their Kennedy Valley property.

The challenge now was to convert the old cane farm to grazing land while improving glider habitat and maintaining profitability.

"We began with glider-friendly fencing - changing the top wire from barbed to plain wire - and we've recently been planting hundreds of trees through the program which will become wildlife corridors and shade for cattle," Justine said.

The trees, and new moveable electric fencing, are also allowing

them to sub-divide the paddocks, as part of an improved stock rotation program to better manage the pastures, improve soil health and reduce both weed problems and herbicide usage.

Graziers David and Jean Bridgeman are also sub-dividing their paddocks with wildlife-friendly fences.

"Most of paddocks will be split in half for planned rotational grazing," David said.

"With our Kennedy Valley farm's flooding issues, focusing on grass structure and better resting paddocks is a good thing.

"It's also good for the ecosystems that are part of the property.

"We won't be flogging the land and there'll be plenty for everybody - all the creatures."

Terrain NRM's Jacqui Richards said the Grazing for Gliders program was helping graziers to run profitable businesses while protecting threatened species.

"Mahogany gliders and cattle are actually very compatible, as mahogany gliders rely on open grassy woodlands," she said.

"Graziers have been to five workshops with Judi Earl and David Hardwick who are experts in holistic grazing, land and soil management.

"Based on their learnings from the workshops and objectives for their properties, landholders submitted funding proposals and received materials and support to make changes.

"These changes reduce threats to the mahogany glider and, in most instances, also improve the



Justine Douglas and Rusty Smith said Grazing for Gliders accelerated change on their Kennedy Valley property.

landholder's ability to manage grazing pressures.

"On-ground works are happening now and the overall results include three hectares of wildlife corridor revegetation, 6km of wildlife-friendly fencing, 15ha of weed control, and improved grazing management practices for more than 50ha of mahogany glider habitat."

Mahogany gliders are listed as endangered.

They are only found in north Queensland where they live in a narrow and highly-fragmented

band of lowland forest extending approximately 120km from Ollera Creek, north of Townsville, to the Hull River near Tully.

Justine Douglas said private landholders had an important role to play in their survival.

"Conservation efforts on our property are a good way to give something back to the community," she said.

"Private land is an integral part of the solution."

• Email: julie.lightfoot@terrain.org.au or contact: 0427 039 117.



The endangered mahogany glider, found only in north Queensland.

Small scale project brings large scale benefits



Yaven Creek Valley landholders discussing the proposed revegetation plans.

IT MAY only cover five hectares, but the Yaven Creek Rivers to Ridgelines project is bringing far-reaching benefits to the Riverina Highlands in New South Wales.

The small-scale revegetation project is a collaboration between the Riverina Highlands Landcare

Network, Riverina Local Land Services and five adjoining landholders in the Yaven Creek valley.

Together, they are working to connect areas of native vegetation in what has been described as the most cleared and degraded box gum woodlands in NSW.

Funded by Landcare Australia, through the support of the Jaramas Foundation, the landholders have been offered assistance with the cost of site preparation, fencing, and revegetation activities that will establish native vegetation and connect areas of remnant vegetation in the region.

Years of clearing and degradation in the area has created environmental issues such as gully erosion, declining ground cover, nutrient runoff and loss of shade and shelter for stock. To combat these problems, the project involves creating corridors that will subdivide large paddocks so that better grazing management can be used.

This is not the first time the Riverina Highlands Landcare Network has worked on a project like this.

With a focus on proactively working with landholders and the community to care for the environment and support sustainable agriculture, this project is being conducted in a similar way

to a successful project the network undertook in the Tarrabandra area.

According to Yaven Creek landholder and Riverina Highlands Landcare Network secretary, Jess Pearce, the project's collaborative approach had brought positive opportunities for the area.

"The project has been a great opportunity for the community to combine their efforts," Jess said.

"This work is often done in isolation, so the collaboration means the landholders get to lean on each other. This is particularly helpful for those in the group who had never been involved with Landcare or tree planting before."

To meet the demands of revegetating the area, over 2,500 local native plants are being grown by volunteers at the Riverina Highlands Landcare Nursery in Tumut.

"This project is all about the community coming together to help their area," Jess said.

"With the nursery specialising in growing native plants to suit the

region's local climatic conditions, it's the perfect place to source our trees."

Landcare Australia has been partnered with the Jaramas Foundation since 2012.

With a focus on supporting sustainable agriculture techniques that reduce or repair environmental degradation, Jaramas has helped fund 35 projects to the value of \$791,000.

Jaramas Foundation chair, Robin Craig said the aim of the foundation is to support projects that build better communities.

"We are delighted to support this project as it not only brings together the local landholders, but benefits the whole community by reducing sediment run off, creating wildlife corridors, educating students in sustainable farming techniques and providing propagation skills to nursery volunteers," Robin said.

• Visit: riverinahighlandslandcare.com.au.

All about getting a fair share

By MDBA chief executive, Phillip Glyde

AT THE heart of the Murray-Darling Basin Plan is the recognition that the water of the Basin's rivers needs to be shared in a fair way. This has meant putting the needs of the environment on par with those of irrigators to underpin a sustainable future for all, a concept familiar to those involved in Landcare.

I know just how much work farmers do to make the most of their water resources, and the contribution they make to sustaining and improving the environment every day.

On-farm it is about achieving the right balance between growing production and sustaining the environment on which that production depends—and at the Basin scale the MDBA, along with Basin governments, is trying to achieve the same thing.

There is currently an opportunity before the Australian parliament

that could adjust the Basin Plan's 2750-gigalitre recovery target to benefit farmers and the river environment.

With the assistance of the CSIRO, the MDBA developed a scientifically sound method to calculate how more efficient management of water for the environment would achieve at least the same level of benefit while reducing the water recovery target in the southern Basin.

We can deliver the environmental benefits of 2750 gigalitres of recovered water while recovering 605 gigalitres less.

The mechanism to achieve this is a package of projects the South Australian, Victorian and New South Wales governments have put forward to repair the wetlands and billabongs, put water onto the floodplains, make sensible changes to river operation rules, and move water through the river system at times when the environment needs it most.

The MDBA assessed that the projects would deliver the environmental outcomes the Basin Plan seeks while allowing 605 gigalitres

of water to remain available for production in irrigation communities.

These projects go hand in hand with a commitment by Basin governments to further modernise water infrastructure to deliver up to 450 gigalitres of additional water for the health of the river system, without negative social and economic impacts.

The Australian parliament is expected to vote on an amendment to progress with this groundbreaking work soon.

I recognise that implementing the Basin Plan is not without its challenges, but it remains the nation's best pathway for securing the future of this vital shared resource.

In the long run, to succeed, the plan needs a sustained commitment from everyone - farming communities and governments alike - to stay the course.

The Basin Plan is a visionary and long-term policy to sustain the Murray-Darling Basin's environment, industries and communities - and it is working.



MDBA chief executive, Phillip Glyde.

Bridging the gap for threatened species



Bridge project partners Suzanne Brown and Clive Piggott (Water Corporation), Steve Moll (RAC Busselton Holiday Park), Kim Williams (DBCA), Jason Mackay and Jess Moloney-Christie (Water Corporation), Jenelle Schult (SWCC), Darren Luscombe (RAC Busselton Holiday Park).

By South West Catchments Council

A PROJECT to help save the western ringtail possum is underway in Busselton, Western Australia.

The threatened species (*Pseudocheirus occidentalis*) need help, so the South West Catchments Council (SWCC), in collaboration

with the Water Corporation, the Department of Biodiversity, Conservation and Attractions (DBCA), the RAC Busselton Holiday Park and the University of Western Australia (UWA), with support from Main Roads and the City of Busselton, have partnered in a possum bridge project in Abbey.

Dr Roberta Bencini from UWA explained some alarming information.

"A population viability analysis conducted on female possums of a population living near Caves Road, Busselton, shows that the probability of the population going extinct in the next 20 years is alarmingly high at about 92 per cent," he said.

UWA researchers identified fox predation and road mortality as the key drivers of possible extinction in this local Caves Road sub-population.

Elsewhere in Busselton, vegetation loss remains the greatest threat to the survival of the western ringtail possum.

"Dispersing to and from these remnant patches of vegetation increases exposure to cat, dog and fox predation," Dr Bencini said.

"Habitat patches within the urban areas are surrounded by roads, which cause habitat loss, road

kills and facilitate feral predator movement."

To assist in the genetic flow between the Caves Road sub-population of the western ringtail possum, SWCC and its project partners are working together to build a possum bridge.

The bridge is due to be completed this month.

Jenelle Schult, the biodiversity project manager at SWCC, said the possum bridge would allow the safe passage of the western ringtail possum over the Buayanyup River, between the Locke Nature Reserve and the RAC Busselton Holiday Park.

"This is a highly collaborative project," Jenelle said.

"The Water Corporation is co-funding the installation of the bridge; UWA will supply and install camera's and will monitor the possum's use of the bridge; and DBCA will continue fox baiting in the Locke Nature Reserve.

"The RAC Busselton Holiday Park will undertake revegetation to increase possum habitat and continue to raise awareness with the park's visitors of how lucky we are to have this critically endangered species in our backyards."

SWCC and its project partners look forward to officially launching the opening of the bridge in June 2018.

Water Corporation South West Regional Manager, John Janssen, said his team was proud to be involved in such a worthwhile partnership which contributed to the local environment.

This project is supported by the South West Catchments Council, through funding from the Water Corporation and the Australian government's National Landcare Program.

• Contact: (08) 9781 3118.

THE LATE MR RAYMOND BORLAND. A LEGACY, A LEGEND, THE ULTIMATE DEFENDER.

In 2010, Mr Raymond Borland travelled around NSW and became concerned about the degradation of the landscape and poor water quality that he saw.

Mr Borland wanted to do something significant for the environment, so he decided to leave a gift in his Will to Landcare Australia, with the funds going to large-scale projects he specifically described.

From Mr Borland's legacy, we have been able to fund three significant projects in NSW, with funds left over to fund many more over the coming decade.

When you leave a gift to Landcare Australia in your Will, your legacy will be the ultimate gift in defending our planet for future generations to enjoy.

For more information: call 1800 151 105 or visit landcareaustralia.org.au/bequests

LEAVE A GIFT IN YOUR WILL FOR OUR ENVIRONMENTAL FUTURE



Community crucial to funding

By Wet Tropics Management Authority

CROWDFUNDING and a small group of volunteers were once all that stood between Kuranda's pristine World Heritage listed rainforest and one of the world's 100 worst invasive species — yellow crazy ants.

In May 2016, it had been three years since the discovery of the area's first yellow crazy ant infestation which had spread 30km from Cairns, via contaminated landscaping materials, to more than 53ha in Kuranda, Queensland.

The Wet Tropics Management Authority's Yellow Crazy Ant Eradication Program had been tackling infestations in and around the Wet Tropics World Heritage Area in Cairns and Kuranda since 2013, with a small budget and subsequent heavy reliance on volunteers.

In Kuranda, the ants threatened the critically endangered Kuranda tree frog (*Litoria myola*), local residents and their pets, some of which had fallen victim to the ants' defence and attack mechanism - spraying formic acid.

Volunteer organisation Kuranda Envirocare recognised community concerns, collaborating in 2015 with the Authority's eradication program to establish a local taskforce providing labour for applying baiting treatments.

The taskforce achieved mixed results, engaging local farmers,

residents and the tourism industry to promote vigilance against the acid-spraying ants.

It assisted to significantly reduce ant populations, but a lack of scientific research and resources kept eradication in Kuranda out of reach.

So, through crowdfunding efforts, Envirocare raised \$20,000 for a James Cook University researcher to study the phenology and ecology of the ant.

This research injection notwithstanding, Kuranda Envirocare president Cathy Retter said the situation had reached a tipping point, until a welcomed state-Commonwealth funding alliance materialised.

In 2016, the Wet Tropics Management Authority received \$7.5 million from the Commonwealth government and \$3 million from the Queensland government in a joint package funding the Yellow Crazy Ant Eradication Program over three years.

"The additional funding meant they could put people on long-term employment and expand the teams on the ground," Cathy said.

"Rather than the hand-to-mouth operation it had been, the funded program allowed a focus on evaluating strategies to determine the best treatment approach."

The new joint government investment came about largely as a result of the support, interest and concern of local residents.

Thanks to the joint funding arrangement, the Authority was able to grow the campaign to a team



A yellow crazy ant (*Anoplolepis gracilipes*) sniffs a bait pellet.

which now employs more than 30 staff and is trialling new methods of eradication.

With one year of the current funding arrangement remaining, the program recently announced its first local eradication at a site south of Cairns.

It is the first of many local eradications to come in what is expected to be a 10 year path to eradication of yellow crazy ants from the wet tropics and surrounds.

Cathy said community support remains essential to ensuring the program stays the course to eradication.

"Ultimately it is always up to the community," she said.

"Whether it's getting out into the field or advocating for funding,

"So far it has been a case of our community putting its best foot forward.

"We're proud of our work so far and thankful we were heard."

The control of yellow crazy ant infestations in and adjacent to the Wet Tropics World Heritage

Area is supported through funding from the Australian government's National Landcare Program and the Queensland Department of Environment and Science.

• Visit: wettropics.gov.au/what-are-yellow-crazy-ants.

About yellow crazy ants

YELLOW crazy ants are among the most invasive species found in the wet tropics of Queensland.

The exotic pest has invaded around 1,430 hectares of land in the region, including more than 60 hectares of rainforest in and adjacent to the World Heritage Area.

Rather than bite or sting, the ants spray formic acid to kill their prey, making them a danger to threatened endemic species in the wet tropics.

The five millimetre ants can kill much larger prey and often work in large numbers referred to as 'super-colonies'.

Small farming achieving a lot with a little

SMALL farming communities around Australia have seen great benefits following the 2015/16 Sustainable Agriculture Small Grants round.

This programme, funded by the National Landcare Program under the administration of the Department of Agriculture and Water Resources, wrapped up recently, with recipients keen to share their stories of success.

The objectives of the Small Grants Round were to prepare farmers and fishers for the future by:

- increasing their capacity and knowledge to productively and sustainably manage Australia's natural resources; and
- promote the adoption of appropriate management practices that will increase the production or improve product quality while maintaining or enhancing the natural resource base.

Reported benefits of the Small Grants Round have included enhanced livelihoods from increased profitability, competitiveness and resilience; reduced environmental impacts by maximising resource-use efficiency; and enriched wellbeing through increased community support for agricultural producers.

DairyTAS implemented a project targeted towards new and expanding dairy farms in northern Tasmania.

The project was aimed at expanding the dairy industry's

Fert\$mart program so Tasmanian farmers could benefit from national nutrient management guidelines.

This project allowed Tasmanian dairy farmers to make informed decisions about fertiliser use and minimise their overall environmental impact.

The project is expected to result in 50 per cent of Tasmanian dairy farmers having Fert\$mart plans by mid-2018.

The long-term impact of this project will see dairy farmers releasing improved profits through nutrient use efficiency, ultimately reducing their costs on fertiliser, labour in conjunction with preventing adverse environmental impacts.

Another case study drawn from the large number of projects was the DigsFish Services project aimed to restore the shellfish habitat in the Ramsar-listed wetland, Pumicestone Passage in south-east Queensland.

Australia's first community-based oyster gardening program was established through this project on Bribie Island.

Through this project the local community were educated on the ecological role of shellfish reefs, and recruited local residents to grow out oysters which have been used for experimental trials restoring shellfish reefs.



Project leader delivering oysters to an accredited oyster gardener. Source: Project SGR1-0153, October 2016.

Restoration activities have ultimately provided improvements in water quality and fisheries productivity in the local area.

These examples are a very small sample of some significant work that was achieved over the 18 month grant period.

Outcomes from projects funded through the Small Grants Round have created lasting benefits to all community members and land users, proving the compatibility of both profits in agricultural industry and environmental stewardship by land users.

The Australian government's National Landcare Program Phase Two has allocated \$134 million for Smart Farms Small Grants and Smart Farming Partnerships.



Dairy farmer with child. Source: Project SGR1-0671, 2017.

These grants programs will support the development and uptake of best practice management, tools and technologies that help farmers, fishers, foresters and regional communities achieve a sustainable approach and beneficial outcomes.

Applications for the first rounds of the Smart Farms Small Grants and the Smart Farming Partnerships grants programs are now closed.

The Department looks forward to seeing what will be achieved through these grant rounds into the future.

Fishing out weeds not a one off

By Ian Towers

ONGOING monitoring and follow-up is a critical aspect of weed management.

All too often, weed control programs start with a bang and then fizzle, resulting in weeds re-establishing and wasting the initial effort.

It is rare that a weed control program achieves 100 per cent effectiveness without the need for follow-up, be it just monitoring or secondary treatments of herbicide or other forms of control such as physical removal.

Failure to follow-up initial treatments can result in an ongoing cycle of weed management, costing extra money and resources.

Where eradication is possible, there is no point in doing half the job.

The focus should be on follow-up - over the long-term, follow-up has the potential to achieve the most cost effective means of preventing reinfestation.

A couple of years ago while fishing for trout on the upper Eucumbene River in the Kosciusko National Park, I noticed there had been a quite rapid colonisation of Scotch or English broom (*Cytisus scoparius*) adjacent to the river.

Apart from the environmental threats posed by this invasive weed (crowding and shading out plants like alpine pineapple grass, kunzea and candle heath), its tendency to form thickets along one of my favourite rivers could make the river inaccessible.

In Australia, brooms invade native vegetation, forestry and pastoral systems, where they cause significant environmental and economic impacts.

There are several other broom species that are included with Scotch broom as Weeds of National Significance (being Montpellier broom, *Genista*

monspessulana; and flax-leaf broom, *Genista linifolia*).

In NSW, Scotch broom mainly infests areas above 600 metres and is currently recognised as a serious weed in parts of the Kosciusko National Park.

The infestation along this part of the Eucumbene River was a new infestation.

I returned to the area in November 2017 and pondered how extensive the broom thickets might be and whether they would limit access to the river.

But I didn't see what I expected.

There was an absence of dark green thickets of broom.

Instead, I saw thickets of dead broom.

The NSW National Parks and Wildlife Service had launched an assault of the invading broom - likely in 2016.

A landscape of dead broom resulted from a targeted effort, while very few native plants were affected.

The control program must have involved an incredible effort because the broom was dotted singularly and in thickets along the river - and everyone appeared to have been killed.

But as I walked up the river, it became evident that the big effort in treating the broom could be wasted.

I could see the odd broom 'hiding' amongst the alpine grevilles and other heaths, revealing themselves with their stark pea-like yellow flowers.

The damp spring seasonal conditions allowed me to uproot about 20 plants, but a few larger specimens thwarted my quest, and the harder I looked, the more I saw. I gave up.

The saying 'one year of weeds is seven years of seeds' reinforces the need for follow-up in weed management.

In the case of broom, one year of seeds can persist for decades - long-term follow-up is a necessity.



Ian Towers with a successfully treated thicket of Scotch broom along the Eucumbene River.

Will I return in a few years' time to find broom has re-invaded? I hope not.

A small effort 'now' and a bit each year would ensure the initial treatment achieves its goal.

I applaud the NSW National Parks and Wildlife Service for the weed management plan for this pristine and vulnerable area.

Unfortunately, the easy and cost effective option of follow up management of preventing further weed infestations, is tied to government priorities, funding and resourcing.

Similarly, management of the nursery industry to prevent and enforce policies around bans on the sale of weeds of national significance will also make a significant contribution to reducing new infestations in the environment.



Flowering newly established Scotch broom.

New weed brochures from the Cactus Warriors



The Tarrangower Cactus Control Group has produced some new weed control brochures.

By Tarrangower Cactus Control Group president, Lee Mead

THE Tarrangower Cactus Control Group (TCCG) has recently

completed a project producing some new weed control brochures for the Mt Alexander Shire in Victoria.

Five brochures were created, one specific for each of the five wards within the shire.

The brochures highlight the most problematic weeds specific to each ward and provide information and contacts to encourage landowners to manage their noxious weeds.

The idea for these brochures was seeded by the problem TCCG has with some non-compliant property owners.

Most of the landowners that do not control wheel cactus infestations are absentee owners, weekenders or new owners who are unaware of their weed responsibilities.

The Cactus Warriors have problems connecting and engaging with these landowner categories because, as a volunteer group, they do not have access to postal address records and have limited time.

Recognising these problems are not unique to wheel cactus, and there are control problems with many different weeds within

their shire, TCCG invited all local Landcare groups to contribute by voting for their 'top 10' weeds.

This method revealed the most serious weeds in each of the five wards and these were highlighted in the brochures.

The Mt Alexander Shire have agreed to include a brochure in the 'Welcome Kit' sent out to all new ratepayers.

This will hopefully capture the problem groups, helping to educate new landowners as soon as they purchase a property and reaching the ones that do not live in the shire.

The brochures provide information about the responsibilities of landowners to manage weeds, identification and best control methods to use and where to find more detailed information.

They also stress that not only rural properties should be involved

in weed control, but urban properties also have the same legal responsibilities, emphasising that most noxious weeds are escapee plants from private gardens.

TCCG thanks the many local Landcare groups who participated in this project by voting for weeds and contributing photos of their local weed infestations.

The brochures include the contact details for these groups and will hopefully lead to future new enquiries and members.

Thanks also to Mt Alexander Shire Council for funding the project.

The brochures will be available to download from the Mt Alexander Shire, Connecting Country and TCCG websites, and hard copies will be available from the shire office, Connecting Country and local Landcare groups.

• Visit: www.cactuswarriors.org.

Bringing the bush to Adelaide

By Alinytjara Wilurara Natural Resource Management

DRIVEN by love of country and culture, and the desire for a better future for the young people living on their homelands, members of the all-Aboriginal Alinytjara Wilurara Natural Resource Management Board sought to find a way to share their world with the wider South Australian community.

This shared desire led to the Board opening its doors in March 2018 to the 'Adelaide Meets The Bush' exhibition, where it has succeeded beyond expectations in bringing together the people of Adelaide and the people and country of the Alinytjara Wilurara (AW) region.

The AW NRM region extends from the Northern Territory border to the southern coast

and from the Western Australian border across to Coober Pedy in SA, spanning more than 250,000 square kilometres.

In Pitjantjatjara, alinytjara means 'north' and wilurara means 'west'.

The region has a population of approximately 3,000 people, the majority of whom identify with the Pitjantjatjara, Yankunytjatjara, Ngaanyatjarra, Kokatha, Mirning or Wirangu people.

The on-ground work the Board supports takes place out of sight of the public eye on vast, remote and spectacular lands.

Owned or managed by the traditional owners, the country abounds with many unique creatures and plants adapted to survive the harsh, arid environment.

The exhibition at Tandanya National Aboriginal Cultural Institute presents interpretations

of the region's people, country and water, through art, photography and video.

"The Adelaide Meets The Bush exhibition is our way of inviting people to our region, to let them see the beauty there, to let them see what we are doing to help our country and our people, and to understand our dreams for the future. We want to build new friendships and partnerships and forge better prospects for us all," AW NRM board member Mima Smart OA said.

The exhibition is presented in partnership with the Adelaide and Mount Lofty Ranges NRM Board.

Both boards are committed to developing a range of ongoing engagement strategies under the Adelaide Meets The Bush banner that will be delivered across both regions.



AW NRM board members Debbie Hansen (left) from Tjuntjuntjara Community and Mima Smart (centre) from Yalata, with Natural Resources Alinytjara Wilurara's regional director Mary-Anne Healy at the launch of the Adelaide Meets The Bush exhibition.

Bushfire recovery is daunting, but manageable



The Barossa Improved Grazing Group have seen value in learning from previous bushfire experiences.

By Georgie Keynes

RECOVERY after bushfire can often appear daunting and difficult for producers to manage and work through.

After two bushfires in two years devastated 25,000 hectares of grazing land in the Barossa ranges of South Australia, the Barossa Improved Grazing Group (BIGG) realised the value in learning from each other

and people who had experienced fires in the past.

With the help of the Adelaide Mount Lofty Ranges NRM Board and the South Australian Murray Darling Basin Natural Resource

Management Board, BIGG compiled a Steps To Recovery Factsheet, case studies, and videos detailing their own learnings with the aim of helping producers affected by bushfires in the future.

The Barossa is predominantly open grasslands with dotted paddock trees supporting mainly livestock enterprises.

After the initial fire front, producers continued to 'mop up', patrolling and extinguishing burning trees, some of which continued to burn for months after the fire.

In addition, the immediate livestock requirements and the longer term options such as agistment and containment lots must be considered carefully to ensure livestock biosecurity and prevent weed contamination.

The fires provided an opportunity for producers to change their whole farm plan, including areas for revegetation, different gateways and watering points.

In addition, most producers have moved to steel fencing materials and burying water pipes, which are less likely to burn in the event of another fire.

The majority of the areas burnt included native grass pastures.

All producers destocked the burnt pasture for at least 10 months after the fire passed, allowing pasture recovery.

The stories of four producers are covered in case study videos which follow the immediate recovery and then 18 months after the fire.

The results from the recovery process demonstrated that the composition of the native pastures remained the same as the pre-fire level, however the production was still half when comparing the burnt and the un-burnt areas three years after the fire.

The BIGG case study resources provide a great example of producers helping producers, and have helped others affected by two large fires across SA.

BIGG is supported by the Murray-Darling Basin Natural Resources Management Board, through funding from the Australian government's National Landcare Program and the NRM Levies.

• Visit: www.biggroup.org.au/project/native-pastures

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Unproductive land offers an opportunity

UNPRODUCTIVE sand dunes in the Coorong, Murraylands and Riverland regions of South Australia will soon be transformed into sustainable timber forests.

The transformation is part of Landcare Australia's Agroforestry Development Series Demonstration Sites project which aims to develop and share knowledge of silviculture within the farming industry and increase sustainability.

Launched in September 2017, the project is being delivered in partnership with the Australian Home Heating Association (AHHA) and the Farm Forestry Landcare Network.

Several demonstration sites are being mapped and researched by the Farm Forestry Landcare Network (FFLN) with the aim of establishing plantations of local native species on otherwise unused agricultural land across southern Australia.

Success of the project has huge commercial potential for farmers and the home heating industry.

Establishing plantations on otherwise unused land means farmers can diversify their income streams by selling timber for home heating, while caring for the environment.

Ian Filmer, FFLN chairman, said the project is a great opportunity for farmers to turn unproductive land into a commercial opportunity.

"Farmers can use sand hill areas which they may otherwise not vegetate and repurpose them into sustainably managed plantations that can generate income," Ian said.

One hectare of land can be planted with 800 to 1,000 trees of different eucalypt varieties that are native to the area and suitable for short-cycle agroforestry systems.

More than 8,200 seedlings have been propagated and will be ready to plant in July this year.

AHHA, a major supporter of Landcare for the past 21 years, have contributed \$10,000 to the project.

According to Demi Brown, AHHA general manager, the project reflects a wider commitment by the association to the environment.

"We always recommend that consumers use firewood sourced from sustainably managed forests and plantations," Demi said.

"Plantations like this are of great importance, not only as a sustainable heat source for Australians but for their many other environmental, social and economic benefits."

Ultimately the FFLN hopes the outcomes of the project will help to further understand how trees can be utilised to benefit landholders, industry, and the local area.

"For us, it's all about sharing what we've learned with the wider farming community and increasing community engagement," Ian said.

"The possibility of making money is a huge incentive for farmers, but the benefit of this project to the environment and the genetic legacy of southern Australia is priceless."



Members from the Farm Forestry Landcare Network collecting seeds to be propagated for planting in unproductive agricultural land.

Working towards productive farms and communities

By Livestock Biosecurity Network CEO, Duncan Rowland

FARMS and farmers play a big role in regional and rural areas, providing food for the nation and employment in their communities.

Farmers also act as custodians of the land, ensuring it is sustainable use for future generations.

Land management is a large factor in the success of agriculture as an industry.

Best practice farm management strategies safeguard biosecurity, protect animal health and welfare, and provide a high degree of confidence that the food produced is safe to eat.

These strategies also ensure that land and water remain free of chemical contamination, native species are protected from introduced threats, and that the communities who live and rely on the land remain strong and viable.

Livestock Biosecurity Network (LBN) is an independent industry initiative focused on improving animal health, welfare, biosecurity and food safety across Australia's livestock industries.

Livestock producers have a traditional role in Australia in the surveillance, detection and reporting of diseases and harmful pests, including the spread of feral animals, noxious weeds or other plants in their regions.

LBN biosecurity and extension managers are located throughout Australia, working closely with existing farming networks to promote greater awareness of biosecurity, health and food safety risks, as well as emergency disease preparation and responsible farm management.

We improve outcomes on-farm by developing educational material and delivering training for use on-farm and throughout the supply chain, as well as working one-on-one or in group



Livestock Biosecurity Network is focused on improving animal health, welfare, biosecurity and food safety across Australia's livestock industries.

settings with producers to develop management plans for their properties.

In doing so, we ensure that Australian agriculture and the land on which it depends remains strong, profitable and sustainable, in the understanding that healthy

livestock and productive farms create strong communities and safeguard the future of the industry.

Livestock producers and farming organisations are invited to contact our biosecurity and extension managers.

LBN is actively encouraging industry-wide networks to participate in establishing biosecurity and farm management programs for livestock producers.

• Visit: www.lbn.org.au/regional-managers

HOW ARE *you* KEEPING WARM THIS WINTER?

Community backing project

By Greening Australia

DARWIN rural landholders have thrown their support behind a Greening Australia project to create new homes and food sources for the endangered black-footed tree-rat in the Northern Territory.

The collaborative project, delivered through Land for Wildlife Top End with \$25,000 funding from Territory NRM, has seen 145 nest boxes installed and over 1,500 plants established to create more habitat and provide critical food sources for the rodent and other tree-dwelling mammals.

The nocturnal black-footed tree-rat, which is the size of a small rabbit and sports a white-tipped tail, is one of Australia's largest rodents.

It relies on tree hollows for nesting during the day and foraging at night.

Populations are found scattered around the Top End including the greater Darwin area.

Community engagement and awareness have formed a core role in the project to ensure landholders are familiar with the species and its needs.

Greening Australia project officer Emma Lupin is passionate about the Territory native landscape and particularly the importance of the interaction between flora and fauna species.

She enthusiastically engages with like-minded landholders who voluntarily manage their properties to promote wildlife habitat.

Emma said the project had been a very successful partnership between landholders, the community, the Territory Wildlife Park and other stakeholders.

"Through the project we've been able to engage local landholders

to teach them ways to help black-footed tree-rats," Emma said.

"The success of the project has exceeded our expectations.

"It was important for us to educate landholders and the community about this threatened species and encourage them to assist in their protection by getting them to report sightings and teaching people to spot the difference between native tree-rats and pest rats.

"By increasing the availability of nesting locations by installing nest boxes on their properties, providing mid-storey fruiting trees to increase the availability of food, managing fires and retaining hollow logs and native grasses, landholders can play a critical role in securing the future of Darwin's native tree-rats."

The project targeted private properties in rural Darwin and surrounding areas that were already being managed for conservation under Land for Wildlife Top End.

Emma said 29 landholders from 29 properties had joined the program along with three local primary schools - Girraween Primary, Howard Springs Primary School and Milkwood Steiner School.

"There has been a lot of enthusiasm for the project and it was a fantastic opportunity to collect data and to engage the community from adults through to school children, to promote wildlife management and awareness," Emma said.

"We hosted an education event for the local community at Territory Wildlife Park with presentations on tree-dwelling mammals and an interactive display by Remote Area Tree Services on the use of dead timber as nesting hollows or ground habitat.

"It was also a chance for landholders to learn about installing nest boxes and get hands-on with painting the new homes for the rats.

"The highlight of the day though was the opportunity to see and interact with various native animals including a black-footed tree-rat, sugar glider, and northern quoll.

"The project is going exceptionally well with nest boxes established at all 29 properties.

"These were all constructed by the Palmerston's men shed and designed by us based on the findings of Charles Darwin University researcher Leigh-Ann Woolley, so it really is very much a community owned and led project."

The team will continue to work with Territory NRM to monitor the success of the project through ongoing data collection.

A new Northern Territory Environment Grant is facilitating further community engagement, installation of nest boxes and camera trapping which will provide valuable new sightings data for the Northern Territory WildWatch program.

• Contact: project officer Emma Lupin (08) 7922 9500 or email: landforwildlife@greeningaustralia.org.au.



The endangered black-footed tree-rat found in the Northern Territory.



The nesting boxes were all constructed by the Palmerston's men shed.

Engaging with absentee landholders



Angela Maier (second from right) with some of the landholders who took part in the Absentee Landholder project.

By Greater Sydney Local Land Services

GREATER Sydney Local Land Services tackled the issue of city-based rural landholders through a unique program funded through the Environmental Trust.

The Absentee Landholder project, which ran for three years, aimed to engage and educate rural landholders living and working in Sydney on all aspects of sustainable land management.

The program saw almost 400 landholders attend nine workshops held in the CBD, covering various topics including pest animal management, weed control, water efficiency, identifying native vegetation, and the importance of conservation.

Greater Sydney Land Services officer Angela Maier said a

smartphone app was also developed as part of the project.

"The LandSmart app was developed to tap into a broader audience and give landholders access to expert advice, resources, and information at the touch of a button," Angela said.

"It is a very unique resource that has never been offered to rural property owners before and is designed to help them look after their land sustainably and responsibly.

"Since we launched the app last year it has been accessed more than 5,000 times and downloaded by over 500 people."

Wendy Friezer took part in the Absentee Landholder program and is an avid user of the app.

She runs a 28ha beef finishing property in Canowindra and the app has been a great benefit.

"Using the LandSmart app, I've been able to quickly and easily

identify plants that have appeared on our run down pastures to determine if they are native and it is excellent to be able to access information on upcoming events and resources so simply," Wendy said.

Features of the app include:

- View upcoming events and workshops and save them directly to your calendar;
- Details on nearby Local Land Services offices and Landcare groups;
- Access to the Rural Living Handbook - a guide for rural and rural residential landholders;
- Information on topics such as soil, water, plants, animals and more;
- Access to latest project news and upcoming events; and
- Is available for Apple and Android devices.

• Contact: Nikki McGrath (02) 4724 2138 or 0448 953 755.

Fighting to save Australia's bananas

By The Australian Centre for International Agricultural Research

YOU may not realise it, but Australia is in the midst of a battle against an insidious enemy, spreading unseen through the soils of our tropical crop-lands.

The cost of losing this fight could mean the end of one of our most successful rural industries - bananas.

Making matters worse is that Fusarium Wilt, commonly known as Panama Disease, is part of a trio of problems spreading out of Asia and threatening to decimate global banana supplies.

The Australian Centre for International Agricultural Research (ACIAR) has been on the front lines of this biosecurity battle for over a decade, with knowledge gained from overseas research projects proving invaluable to slowing the spread of Panama Disease in Australia and other partner countries.

Panama Disease is caused by a soil-dwelling fungus that blocks the water-conducting tissue in the stems of banana plants starving the plant of water, causing the leaves to turn yellow, wilt and die.

First detected in 1990 in Taiwan, Panama Disease Tropical Race 4 (TR4) spread rapidly throughout South-east Asia, wiping out the Cavendish-based industry in Malaysia and appearing on Australia's doorstep in Indonesia in 1994.

The following year, ACIAR funded projects evaluating the resistance of different cultivars to TR4.

Disease-tolerant cultivars that had allowed banana cultivation to

continue in Taiwan were introduced as a stop-gap measure, enabling Indonesian farmers to continue some production even in the presence of Panama Disease.

Research through ACIAR-funded projects continued in the late 1990s and early 2000s but, despite the researchers' best efforts, TR4 continued to spread throughout Asia, reaching the Philippines, the sixth-largest exporter in the world, in 2005.

Due to the knowledge gained in Indonesia from earlier research, the Philippine Government partnered with ACIAR to develop a project helping defend smallholder banana farmers from being devastated by R4.

The ensuing project was run by the Queensland Department of Agriculture and Fisheries (QDAF).

In March 2015, Australia's banana industry received news it didn't want to hear: a plantation in far north Queensland had tested positive for TR4 - Panama Disease had made its way to Australia's production centre.

Despite the setback, Australian farmers were determined to keep TR4 from spreading, with knowledge gained on previous ACIAR projects overseas helping contain the outbreak.

"The experience we gained (on the ACIAR project) in the Philippines proved timely for Queensland and the value of that experience has been acknowledged by everyone in the banana industry and the QLD government," Dr Tony Pattison, from QDAF who led ACIAR projects in Indonesia in the mid-2000s, said.

"The project identified that the amount of TR4 inoculum



Researchers in the southern Philippines working on an ACIAR project.

in the soil is responsible for overcoming the resistance of banana plants.

"That makes it paramount to keep levels of Fusarium low and, to do that, practices are needed that encourage growth of beneficial soil organisms.

"Biodiversity is the key to breaking the Fusarium wilt disease cycle.

"It converts the plantation environment into something more complex and challenging than a monoculture of banana clones in a biological desert."

Since 1990, ACIAR has invested over \$3.3 million in research aimed at minimising the spread of TR4 and its impact



Bananas move along a conveyor belt during post-harvest quality control.

on both smallholder farmers and commercial growers.

ACIAR is currently funding a project in the Philippines and Australia bringing together experts from both countries.

The collective action stemming from these initiatives is the best chance for managing Panama Disease, reducing the impact on farmers and saving the world's favourite fruit.

Eradication of feral animals in the pipeline



Damage caused by the feral pigs.

SINCE colonisation, feral animals have had a significant negative impact on Australia's biodiversity and natural environment.

According to the New South Wales Natural Resource Commission, their impact costs Australian farmers almost \$800 million a year.

Pests such as cats, feral pigs, foxes and rabbits have been

especially destructive on native wildlife, natural habitats, crops and livestock.

Australian Gas Infrastructure Group (AGIG), owner and operator of Dampier to Bunbury Pipeline (DBP), recognise the enormous threat these animals present and are on a mission to help eradicate feral animals across Western Australia.

In partnership with Landcare Australia, AGIG has contributed \$30,000 to fund four projects that are controlling feral animals in the Pilbara, Mid West, Wheatbelt and Peel regions.

Managed by local Landcare and community groups, the projects are helping protect hundreds of threatened and endangered native species, safeguarding the productivity of farmers, and training local and Indigenous landowners to manage pests.

AGIG recognises the devastating impact feral animals have on the communities which the Dampier Bunbury Pipeline runs through.

According to Andrew Staniford, AGIG general manager of customer and shared services, supporting local communities where AGIG operates is very important.

"The Dampier Bunbury Pipeline spans almost the entire length of Western Australia. Unfortunately the impact feral animals have on our state is not something isolated to one or two towns," Andrew said.

"We know that supporting Landcare Australia through the funding of these four projects, we are taking direct action to stop this enormous problem."

For the past six years, Chattering Landcare Group has been working in the Wheatbelt to control feral pigs in their local area.

Group Coordinator Rosanna Hindmarsh has experienced first-hand the damage caused by feral pigs.

"They destroy everything in their path," Rosanna said.

"During the night they plough up paddocks and the national parks and reserves looking for yams.

"Orchard irrigation is ripped up in search of water and fences are broken creating major problems for farmers."

Last year the group captured 168 pigs.

The process is slow, often taking weeks from first sighting to capture.

However, with a sow being able to produce 10 to 16 babies each year,

every capture is another step closer to eradication.

AGIG's funding was very timely for the group last year.

"A landowner approached us in August 2017 with a feral pig issue," Rosanna said.

"AGIG's grant was an important contribution as we had reached the end of a project and were waiting for funding to come through in 2018.

"The timing of the grant from AGIG meant we could immediately deal with the landowner's problem."

Over the course of four weeks the group capture 32 pigs - including 14 unborns - on three different locations, with the help of a professional trapper.

"In our opinion, the best way to tackle this issue is to seek and destroy," Rosanna said.

"Thanks to the timely support of AGIG that's what we've been able to do."

• Visit: www.landcareaustralia.org.au/our-partners/corporate-partners/dbp

Lion Dairy Pride Landcare Grants boost farm sustainability and savings

FROM southern Tasmania to far north Queensland, dairy farmers supplying Lion Dairy and Drinks (Lion) are already starting to see sustainability improvements and cost savings thanks to the 2016/2017 Lion Dairy Pride Landcare Grants program.

Last year, Lion and Landcare Australia ran the popular funding program once again, awarding grants to 10 dairy farmers to help improve sustainability on their farms.

Close to \$100,000 in funding helped these farmers implement initiatives to tackle some of the most common issues faced across the industry.

The solutions funded include the increased use of solar power, installation of energy saving equipment, recycling of waste water, and revegetation projects.

Lion agriculture procurement director, Murray Jeffrey, was excited to see the on-farm results the program has delivered.

“We are really proud to be partnering with Landcare to offer our farmers the tools and resources to address some of the ongoing environmental challenges in the dairy industry,” Murray said.

“The Lion Dairy Pride Landcare Grants Program attracted some fantastic entries last year and a number of successful projects were funded.

“We were really encouraged to see that the projects achieved some great environmental outcomes with many of them also delivering sustainable cost reductions too.”

Citing a range of ongoing challenges including increasing costs, electricity outages and difficulties maintaining productivity during drought periods, the grant recipients have already started to see positive results from the projects.

A range of benefits have been reported, including a reduction in energy bills, improvements in the efficiency of operations, lower emissions, and reduced labour and maintenance costs.

It has been estimated that the installation of 544 energy-efficient devices, such as heat recovery units, LED bulbs and variable speeds drives, has produced average energy savings of 8 percent across the projects since being implemented.

One popular initiative across a number of grant recipients was the installation of heat recovery systems, which reuse heat from milk cooling systems to heat water for cleaning and sterilising.

This reduces energy costs, with Sam Graham from New South Wales dairy farm, Beaulands, seeing the 25 percent increase in energy costs negated by the introduction of this system.

Variable speed drives (VSD) were also deemed successful when it came to reducing energy use as they adjust speed and power consumption to meet the varying demands of milking.

As well as energy saving benefits, Charlie Maier, who runs a dairy farm on QLD’s Atherton Tablelands with his wife, Elisabeth, estimates that the VSD will pay for itself within a two to three year period and makes the dairy a much quieter and more comfortable place to work.

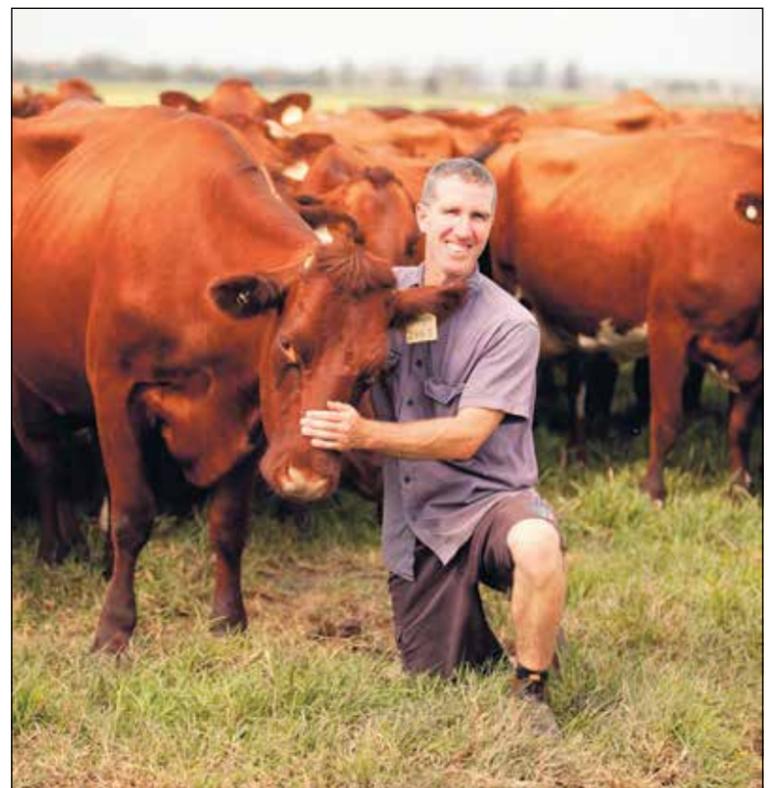
In northern Victoria, Steven and Deanne Hore manage dairy farm, Elmar, which produces more than 3.3 million litres of milk annually through 400 Holstein cows.

As with all dairy enterprises, energy usage is high because of the equipment needed for operations.

The Hores have addressed this issue by installing 84 solar panels on the dairy shed.

When excess power is generated, it is sold back to the grid, and the Hores have found they do not have to draw from the grid during peak times.

The initial installation of 76 panels took \$500-\$550 a month off the power bill and it is expected to drop by a further \$200 with the extra eight panels funded through the Lion Dairy Pride Landcare Grant.



Sam Graham, Beaulands, is seeing the 25 per cent increase in energy costs negated by the introduction of a heat recovery system.

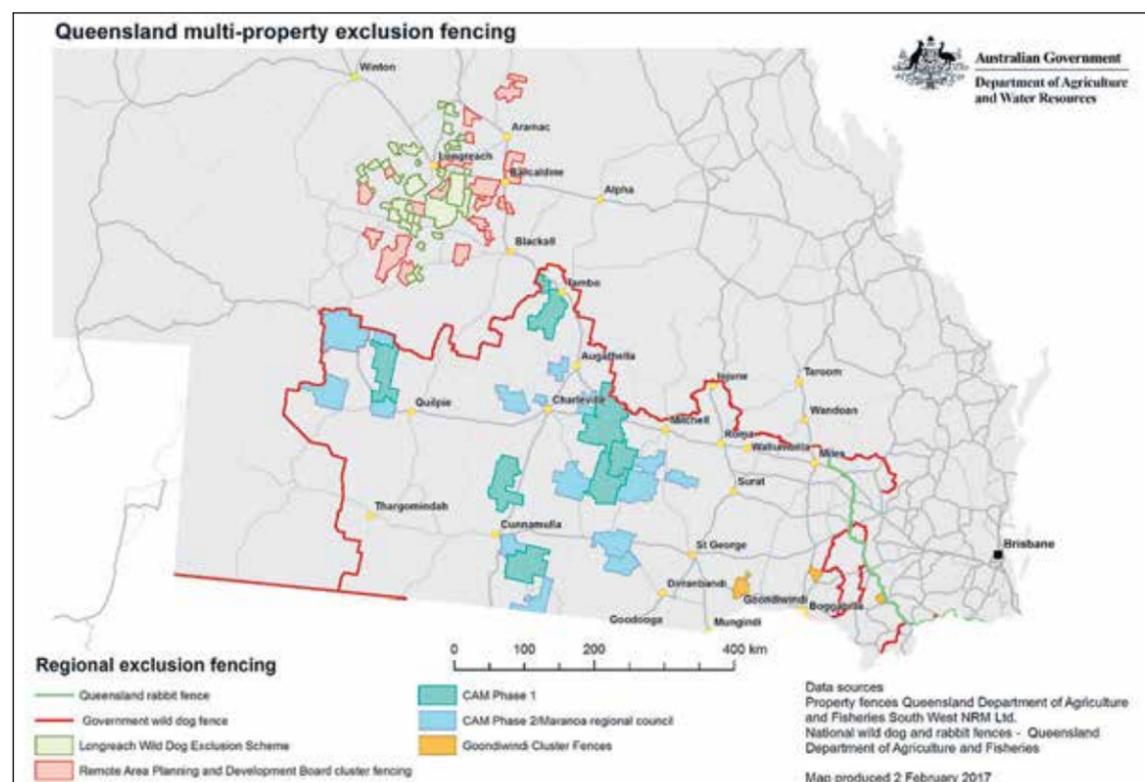
In the future, Steven and Deanne plan to have batteries to store power, rather than putting it back into the grid.

The Lion Dairy Pride Landcare Grants program forms part of Lion Dairy Pride, a dairy farmer

sustainability program launched by Lion in 2016.

The program offers farmers who supply Lion a unique way to measure, evaluate and improve key areas of sustainability on their farm.

Getting a lot of efficiency out of cluster fencing



Multi-property exclusion fencing in Queensland.

NORTH-WEST of Quilpie in Queensland, in a corner of the Wild Dog Barrier Fence, eight graziers are achieving a lot with a little from their high integrity cluster fence.

The numbers are big. By erecting 107km of fencing and utilising the existing Wild Dog

Barrier Fence, they have enclosed 339,765 hectares over eight properties to help better manage the impacts of wild dogs.

Likewise, south-east of Stonehenge in QLD, 14 landholders have enclosed 14 properties with more than 340km of cluster

fencing encompassing 188,200 hectares.

Funding assistance from the Australian and QLD governments has allowed many farming cluster groups to construct cluster fences throughout central and south-west QLD.

But, erecting a high integrity cluster fence is just the beginning, with cluster groups and the wider community experiencing the many benefits that come with the fences.

The good news is that landholders within the cluster fences are seeing fewer wild dog attacks on their livestock.

Before the cluster fences, the impact from wild dogs was devastating, with graziers in the regions losing sheep and experiencing lambing rates of 30 per cent or less.

Some graziers were considering getting out of sheep altogether.

Strikingly, within the first year of a cluster fence being completed, it was not unusual to see lambing rates bounce back to 80 per cent or more.

Graziers are seeing their flocks improving too.

Not only with increasing numbers, but their condition is improving because they are more relaxed and content.

And the benefits keep piling up within the cluster fences.

Pastures are improving with a reduction in total grazing pressure from other animals leading to an increase in groundcover.

Herbages and grasses are appearing that have not been seen before.

Long-term carrying capacity is improving with farmers locking up and resting country.

More grass means farming businesses have become more resilient, particularly during prolonged dry conditions.

On-farm biosecurity is enhanced as well, with landholders hoping to eradicate lice and brucellosis and limit the movement of weeds - all thanks to the cluster fences.

The benefits are flowing off-farm with rural and regional communities excited about receiving a much needed boost where the fences have been constructed.

Increasing sheep numbers will mean more work for more shearers for longer.

Employment is rising for fencing contractors and local fencing suppliers have benefited from the increase in sales.

More importantly, the health and wellbeing of graziers and their families involved in cluster groups has improved.

Graziers are gaining confidence and are now back in control.

Their anxiety has been significantly reduced with their families noticing the change.

Farming communities are now seeing the value in good fences and are moving forward focussing on what is important.

Farm biosecurity is central to good land management

By the Farm Biosecurity team

BY IMPLEMENTING simple biosecurity measures in your day-to-day operations, you will improve your own biosecurity and that of your region, while minimising production losses and unnecessary costs.

That is the key message for producers from the Farm Biosecurity project, a joint initiative of Animal Health Australia (AHA) and Plant Health Australia.

The project's goal is to equip producers with key information they need to reduce the risks posed by diseases, pests and weeds to crops and livestock, according to Dr Simon Humphrys, AHA's executive manager of Biosecurity and Product Integrity Services.

"It does this primarily through its website, which is a hub of on-farm biosecurity information," Dr Humphrys said.

"From industry plans to farm manuals to animal health declarations and biosecurity checklists, there are plenty of resources to help producers

implement on-farm biosecurity practices.

"We really want to make it as easy as we can for farmers to set themselves up for success.

"We've also developed videos on the six biosecurity essentials and the FarmBiosecurity mobile app to make it even easier for producers to incorporate farm biosecurity into their everyday activities."

The app allows producers to access a range of information on potential biosecurity risks, view suggested management strategies and build a plan specific to their property.

Producers can download the FarmBiosecurity app on the App store or Google Play store.

Biosecurity is central to good land management.

Endemic and emerging disease, pest and weed threats are a huge concern to producers in affected areas.

Limiting their impacts is a national priority across all agricultural industries.

"From large agricultural companies to hobby farmers - everyone has to pull together so

that land is as productive, healthy and well protected as it can be," Dr Humphrys said.

Farm Biosecurity regularly surveys producers to find out how they think about on-farm biosecurity.

Successive surveys have shown that a majority of producers really get the importance of biosecurity and how it benefits not only individual farms, but also the surrounding regions and wider industry.

"It's really valuable for us to know what we are doing that works for producers and what we can add to the toolkit so that the Farm Biosecurity project continues to deliver good outcomes for producers and industries as a whole," Dr Humphrys said.

Likewise, freedom from threats was considered the main benefit of on-farm biosecurity among 55 percent of producers, though another 37 percent noted securing their livelihood and income as a big factor.

The project has been building awareness of on-farm biosecurity since it was established in 2009.

In 2017, the project's work was formally recognised at the



The FarmBiosecurity mobile app makes it easier for producers to incorporate farm biosecurity into their everyday activities.

Australian Biosecurity Awards, which highlight significant contributions to maintaining Australia's biosecurity integrity.

This year, the Farm Biosecurity Project established the Farm Biosecurity Producer of the Year Award in partnership with the Department of Agriculture and Water Resources.

"Acknowledging great examples is a really positive way to point

producers to innovative ways to implement biosecurity practices on-farm," Dr Humphrys said.

"By showcasing producers who demonstrate fantastic biosecurity practices, we can help other producers see how it can be done on their own properties and the benefits they get back."

• Visit: www.farmbiosecurity.com.au.

Landholders protect critical broilga habitat at Pura Pura



Glenn Rogers and Rod Eldridge on the Rogers' grazing and cropping property at Pura Pura near Lake Bolac, Victoria.

By Angela Snowdon, Landcare Australia

GLENN and Stephanie Rogers purchased their 1100 hectare mixed grazing and cropping property at

Pura Pura near Lake Bolac, Victoria, in 2016.

The property is no ordinary piece of farming land, with Pink Lake, Salt Lake and part of Blue Lake situated in the centre, covering about 200 hectares.

The lakes are part of the Nerrin wetlands, an extensive series of ephemeral wetlands and shallow lakes scattered across the volcanic plains south of Lake Bolac.

The area is recognised for the habitat it provides for many wading and water birds, as well as other important species including the growling grass frog, striped legless lizard, and Corangamite water skink.

Glenn and Stephanie's property is a significant flocking site for southern broilgas, with more than 70 broilgas gathering there each year prior to nesting.

Broilgas require a variety of habitats ranging from swamps to grasslands, in order to roost, feed, breed and rest.

Much of their preferred habitat has been lost due to changes in land use and drainage of wetlands for agriculture.

Broilgas are also affected by developments like the construction of wind farms that can disrupt their flight paths and nesting areas.

The Rogers' aim is to have a productive mixed cropping and grazing property where agriculture and biodiversity coexist.

Protecting broilga habitat is important, but with a young family and a farm to pay off, there are many priorities to juggle.

When Glenn and Stephanie purchased their property they faced a number of challenges.

Arable areas around the lakes had been sown with tall wheat grass, a highly invasive species that was spreading, as were paddy melons and other weeds.

Stock was at risk of getting stuck in the unfenced lakes, trampling vegetation and causing erosion and bank destabilisation.

Local Landcare facilitator Rod Eldridge has provided advice

and support to assist Glenn and Stephanie.

In June 2016, Rod and the Lismore Land Protection Group secured a Landcare Australia Special Projects Grant to help fence sections of the lakes.

These grants were made possible through the contributions of corporate partners participating in Landcare Australia's Workplace Giving program.

The fencing will prevent stock access to the lakes and help Glenn and Stephanie to manage the tall wheat grass, which they intend to replace over time with a more suitable pasture.

Over time Glenn hopes to achieve the best results for his farming operation and for the broilga.

Angela Snowdon is a Landcare liaison coordinator at Landcare Australia in Melbourne.

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SYDNEY, MAY, 2018

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