

GREETINGS LANDCARERS

We couldn't fit all the wonderful stories around the traps into this newsletter, there are so many positive stories around at the moment. It's still a newsletter jam packed with information and inspiring stories.

If you are a member of one of our locality groups please watch your emails for some event and training opportunities being offered.

We really enjoyed our day having a stall at the recent Regeneration festival in Mullumbimby and were able to connect with quite a few of our volunteer landcarers. It was a great day!

As always, if you'd like to connect, or have a suggestion, please don't hesitate to contact Joanne - details at the end of the newsletter. From the BVL team



Did you Know?

Blue ginger – *Dichorisandra thyrsiflorais* - is a very easy care plant which thrives in dry shady spots. It has large fleshy nodules on the roots which make it fairly hardy through dry times as well, although it won't flourish when things are very dry – a good drink every so often will make a big difference. In Autumn the bright purple blue flowers make a dramatic show and are popular with both blue banded bees (*Amegilla cingulate*, which prefer flowers which are blue or purple), and the large teddy bear bee (*Amegilla bombiformis*). The plant will sucker to form a clump but is not invasive. Pruning will also result in bushier growth and cuttings strike readily. Not actually a ginger at all, this is an old fashioned plant that is finding new favour in frost free gardens. (Thanks Kate Wall <https://gardendrum.com/2016/05/04/95-different-plants-flower-subtropical-garden/>)

FEATURE LOCALITY GROUP

LILLI PILLI BYRON BAY

Lilli Pilli Byron Bay Landcare group started in 2017 working on community plots of land at the entrance to the area known as Lilli Pilli and along the creek area. They have half a dozen regular volunteers who meet every first Saturday of the month. A real highlight in the past twelve months has been clearing weeds and planting along the creek riparian zone which has been very rewarding. "We don't bite off more than we can chew", says Deb Jorgensen. "We just 'do what we can do'". The group are always looking for more volunteers, if you are interested Deb's details are in the Working Bees's list at the end of this newsletter.



Lilli Pilli Byron Bay Landcare Locality Group



Above: Deb and Clare in the 'before' shot on left, 'after' on the right

Below: the creek cleaned up



BRUNSWICK VALLEY LANDCARE INC NEWS

Welcome Jeannette Martin to our Management Committee! We're still looking for others that might like to be involved on the Management Committee. Please speak to President Pete if you are interested. Other committee members are: Peter Ryan, President; Jenny Hartigan, Treasurer; Sue Haining; Felicity Watford; Doug Porter; Joanne McMurtry

Locality Group Offerings

Plans are underway to help reinvigorate our locality groups following three years of COVID-19 and natural disasters.

One of our first offerings was the Bush Tucker Walk, Talk and Eat which was offered to members last week - and sold out within 2 hours! It's obvious these kinds of get togethers will be popular. We are planning to offer more, so BVL locality group members watch your emails.

- More Bush Tucker Walk, Talk and Eat events
- First Aid for Locality Group members
- Next Box Habitat Workshop at The Farm
- Weed ID and methods of control, including non-chemical methods (to come later in 2023)



BVL at Regeneration on 4 March 2023

Interested in plant ID and native plant walks? Like a casual environment to learn native plant identification?

Email Jo Green
Jogreen909@gmail.com to find out more about joining Australian Plant Society Far North Coast group.

SUCCESS FOR BYRON BAY DUNE RECOVERY PROJECT

A report on the Dune Recovery Project, which aimed to restore the eroded sand dunes and create a more natural dune formation between Clarkes Beach and Main Beach at Byron Bay, shows that the first stage/phase of the project was a great success.

In November 2022 heavy equipment was on the beach for a week, scraping sand from the tidal zone to rebuild the dunes, a process that mimicked and sped up the natural process for dune restoration. Chloe Dowsett, Council's Coast and Biodiversity Coordinator, said if left to nature that process may have taken many years or even decades, and already there is evidence that the project has been very successful.

"We can already see the sand dunes starting to regenerate with signs of plant growth and germination and the next nine months will focus on more plantings, monitoring and maintenance work," Ms Dowsett said.

The dunes will be tested over time as to whether they can withstand future impacts of storm events, as these beaches experience fluctuating sand supply around the Cape.

The summary report on the Main and Clarkes Beach Dune Recovery Project is going to Council's Coast and ICOLL Advisory Committee today (Tuesday 14 February) and is now available on Council's website. "The report not only takes into account the restoration and rehabilitation of the sand dunes, but the positive impact on the dune ecosystem which is an important habitat for birds and animals," Ms Dowsett said.

Other achievements include:

- protection of cultural heritage.
- restoration of public beach access ways.
- improved beach amenity.



"We hope beachgoers recognise the work that has been put into restoring the dunes and urge them to help us continue the revegetation process, by staying off the dunes and sticking to the designated beach accessways," Ms Dowsett said.

"Some rainbow bee-eater chicks recently needed to be rescued from a collapsed dune on a nearby beach, due to people walking on dunes, which is really disheartening. "Please, we really need people to stay off the dunes," she said.

The \$165,000 project was funded by the NSW Department of Planning and Environment's Coastal and Estuary Grants Program and Council.

"This project is a demonstration of land managers, public authorities, key groups, and Traditional Owners coming together to achieve some great outcomes for the environment and our community," Ms Dowsett said.

RE-MARKET LAUNCHED

The Byron Shire Council has launched The Re-Market. The Re-Market (formerly known as the second hand shop or the tip shop) at the Byron Resource Recovery Centre will still offer people a place to drop off or buy great second-hand bargains and will now have the bonus of space to run workshops and repair and recover items for reuse.

Sarah Child, Byron Shire Council's Resource Recovery Strategy and Engagement Officer, said that she was thrilled to launch the upgraded shop and facility.

"We launched The Re-Market by having an open day for the community on Saturday 25th February where people could view the re-vamped space," she said.

"In the new centre, there will be something for everyone. From composting workshops to learning how to deconstruct pallets, and for all you cyclists out there you will be shown how to make your bike as good as new.

"Come along and learn more about where you can access repair services, learn skills, and rethink your approach to waste.

Council was joined by Shedding Community Workshop Incorporated, North East Waste, Mullumbimby Repair Café, Salvage Culture and others at the launch event.

As part of the new facility a test and tag system will now be available, which means that people can drop off small home appliances that will be checked for safety and resold, further reducing waste going to landfill.

More information about the event can be found on Council's [What's On page](#).



COUNCIL'S NEW RE-MARKET FACILITY.

OCEAN SHORES COULD HAVE BEEN VERY DIFFERENT

Courtesy Rob Doolan

It was 1983 and Alan Bond had bought the residue of Ocean Shores and won the Americas Cup. His vision was to 'develop' Ocean Shores and create a giant marina and hold the next Americas Cup there.

It involved cutting a giant hole in the beach to provide a navigable ocean entrance and digging out the large wetland which is now the core of Billinudgel Nature Reserve.

The map below shows the concept - it also involved extending Capricornia Canal to the marina and extensive mass clearing of the various forests in the locality.

A population of some 30,000 in Ocean Shores was envisaged.

As a young planner at BSC, I sat in on the intergovernmental department meetings with BSC and the developer.



29 Species Back from the Brink

The Conversation

We found 29 threatened species are back from the brink in Australia. Dozens of species have been coaxed back from oblivion, with fenced havens, conserved habitat, islands and feral predator control vital. Our new research has found 15 threatened mammal, eight bird, four frog, one reptile and one fish species have recovered enough that they no longer meet the criteria for listing as threatened. Our assessments were based on scrutiny of the latest data on population size and distributions – a review process that the government doesn't routinely do. Read in [The Conversation AU](#)

THE MOST SEARCHED FOR TREE IN 2022

Greener Spaces Better Places

Banksia ericifolia is the 2022 most searched for tree in [Which Plant Where](#). 'Which Plant Where' is a climate ready plant selection tool. It is the culmination of five years of research investigating which horticultural species will thrive in Australian urban landscapes, not only now but under future changing climates.

NATIONAL URBAN GREEN INFRASTRUCTURE (UGI) HANDBOOK

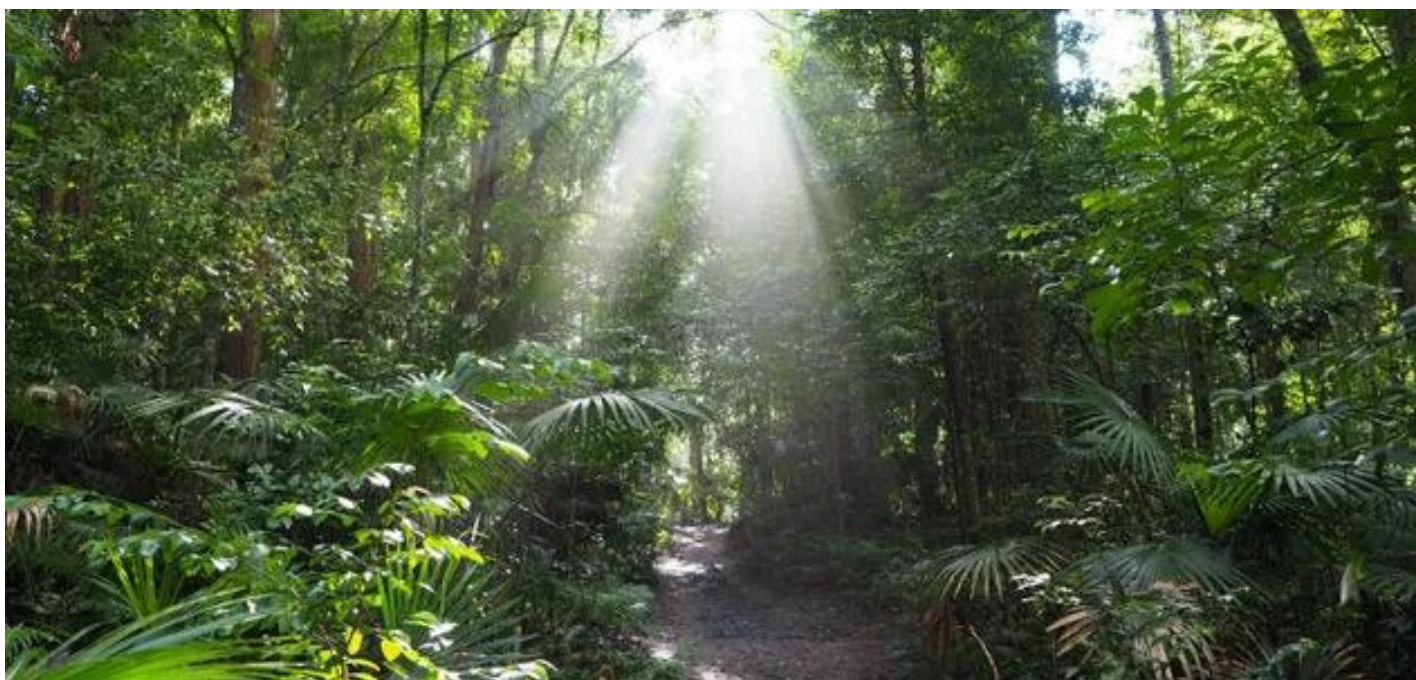
Greener Spaces Better Places

From street trees to vertical gardens, UGI saves energy, increases property value, and extends the life of grey infrastructure. It's a must have.

Without a national UGI framework, past efforts and outcomes have varied widely. So Standards Australia has now published the first ever National Urban Green Infrastructure Planning and Decision Framework - SA HB 214:2022.

Greener Spaces Better Places acted as a peer reviewer for the document. Put into practice, this handbook is a step towards more healthy, liveable and climate resilient communities.

[READ MORE HERE](#)



Other news from Greener Spaces Better Places

- A 10% increase in [tree canopy close to home may reduce onset of heart attacks](#) by 7% and heart-related deaths by 4% for people in Sydney, Newcastle and Wollongong living in houses. Feng, X., Navakatikyan, M. A., Toms, R., & Astell-Burt, T. (2022).
- ... if that's not enough, a 10% increase in [tree canopy close to home may reduce onset of social loneliness](#) by 15% in women living in Sydney, Newcastle and Wollongong.

SOILS

FARMERS NEEDED FOR NATIONAL SOIL TESTING PROGRAM

Southern Cross University and the Environmental Analysis Laboratory (EAL) are inviting farmers and land managers across the country to participate in a Department of Agriculture, Fisheries and Forestry incentivised soil sampling and analysis program.

Under the pilot Soil Monitoring Incentives Program (SMIP), the soil analysis data can assist farmers to make informed decisions on land management practices, while also being available to others for use through the Australian National Soil Information System (ANSIS).

Farmers and land managers can receive \$275 per sampling site, capped at \$10,000 per ABN, towards the cost of soil sampling and analysis and sharing the data through ANSIS. They can also receive assistance from Commonwealth-funded soil extension officers to interpret their soil test results. EAL's Senior Manager of Laboratory Operations, Graham Lancaster, said participating in the soil sampling initiative enables farmers to benchmark the carbon or organic matter of their farm soil and can even contribute to Emissions Reduction Fund projects.

Southern Cross' SMIP Project Officer, Debbe Allen, said: "It's really important we get farmers from across the country involved, and lots of them, so that in future those making policy decisions around soils will have relevant data for informed decisions.

"Currently, there is not enough quality data to make confident recommendations, and compared with the rest of the world, we are decades behind with this.

"It might cost farmers a little more money, but it might also save them significantly on ameliorants, if they know what nutrients their pastures and crops can already access below the top 10cm layer."

Southern Cross University is also looking for qualified agronomists across the country with soil sampling experience to come on board to assist with delivering this program.

For more information on the program visit www.scu.edu.au/pilot-soils-program/, email soiltest@scu.edu.au or phone 02 6620 3489.

The program ends on 30 June 2023.

This project is supported by funding through the Australian Government National Soil Strategy (Department of Agriculture, Fisheries and Forestry).



BACTERIA AS AN ALTERNATIVE TO CHEMICAL PESTICIDES

Wageningen Plant Research, Feb 2, 2023

Everything that plants absorb eventually ends up on your plate and so in your body, including pesticides. Pesticides are bad for your health and the environment, which is why the EU wants to drastically reduce their use. Read the [full article](#).

Professor Marnix Medema of Wageningen University & Research (WUR) is coordinator of a research consortium that will be spending the next few years looking for an alternative to chemical pesticides in the agriculture sector. They believe that antimicrobial peptides may offer a solution.

The Netherlands Organisation for Scientific Research (NWO) has granted three consortia, including this one, a total of €5.5 million over the next five years as part of an NWO Kennis- en Innovatieconvenant-programme to investigate the role of the microbiome in the nutrient cycle called Microbiome: Healthy from soil to gut and back.

MYCORRHIZAL COLONIZATION: IT'S WHAT YOUR SOIL NEEDS AND PROBABLY ISN'T GETTING.

By Dr Allen Williams, UnderstandingAG

'The vast majority of our soils are deficient in one thing. Not nitrogen, not phosphorus, not calcium, not another element (B, Cu, Zn, Mn, Mg, Al, etc.). Not what we would suspect is the "usual" culprit. As a matter of fact, the deficiency is not an element (mineral) at all. It is not organic matter or carbon. It is actually a soil microorganism: mycorrhizal fungi.'

How do we know what highly mycorrhizal soils look like? First, they will have significant soil aggregation (Picture left). Additionally, the roots of the plants will be surrounded by a soil coating - Rhizosheath Coating (Picture below)

Benefits of Mycorrhizal Fungi

- ~ Interconnect all plant roots in a continuous field and even between fields.
- ~ Sends signals to all plants when plants in one area of a field are being preyed upon by pests.
- ~ Produce biotic glues that stick together tiny soil particles to form much larger soil aggregates for significantly improved water infiltration and retention.
- ~ These same soil aggregates relieve soil compaction.
- ~ Capture nutrients in the soil and feed them to the plants.
- ~ Act as the plant's principal immune system against fungal disease.
- ~ Move nutrients in a field from an area of higher concentration to an area of lower concentration.
- ~ Greatly extend the reach of an individual plant's roots.

Read the full [UnderstandingAG article here](#). Understanding Ag is a regenerative agricultural consulting company in the USA that provides the support and confidence to help clients reduce input costs, generate actual profits and ensure family farming futures.



Highly Aggregated Soil with moderate to large aggregates.



SNIPPETS

An invasive weed threatens this outback community's 'pristine' environment but locals are determined to stamp it out

The pastoral landcare group is made up of property owners, land managers and local residents, and has won a national landcare award for its efforts to make the community of Mataranka "neem-free in 2023". <http://www.abc.net.au/news/rural/2023-02-18/nt-mataranka-landcare-neem-weed-threatens-pristine-environment/101954772>

Guava-root knot nematode detected in Hervey Bay with farmers and gardeners on high alert

Biosecurity Queensland confirmed it had detected a microscopic, parasitic worm species known as guava root-knot nematode (*Meloidogyne enterolobii*) in southern Queensland.

The pest has been known to affect sweet potato, chilli, cotton, ginger, guava, papaya, soybean, watermelon, tobacco and a variety of other plants. Once you do get it in the soil, it's very hard to eradicate. Guava root-knot nematode can be easily transmitted through contaminated soil and plant material. <https://www.abc.net.au/news/2023-02-19/guava-root-knot-nematode-detected-hervey-bay/>

Dung beetles donated to flood-affected farmers on NSW-Victorian border to help regenerate soil

Dung beetles bury animal droppings, which helps aerate the soil and relocates nitrogen and phosphorus from the dung into the grass root zone. After inundation of property's, there seemed to be no dung beetle activity. <https://www.abc.net.au/news/rural/2023-02-24/dung-beetles-donated-to-flood-affected-farmers/>

Booroolong frogs bounce back after habitat restoration and cleansing floods

The Booroolong frog was once deemed safe and secure, but in the past four decades the population of the endangered species has dropped below 5,000 across Australia. The native species was once a common sighting along the Great Dividing Range between Victoria and Queensland, but now only isolated pockets in the Southern and Central Tablelands of New South Wales remain.

<https://www.abc.net.au/news/2023-02-24/booroolong-frog-bounces-back-after-habitat-restored/>

What next for Australia's macadamia industry as farmgate prices crack under global glut?

If you have never tasted a crisp creamy macadamia kernel, or it has been a while, Australian growers say now is a critical time to buy the native nut and help them weather a global glut and savage price cuts. The industry has been hard hit by a pandemic-driven dent in sales, rising inflation, and production outstripping demand after increased plantings here and overseas.

<https://www.abc.net.au/news/rural/2023-02-27/macadamia-prices-drop-amid-global-glut/>

New biological control released against invasive cabomba weed

Australia's national science agency, CSIRO, and one of the nation's largest water companies Seqwater, are using a tiny defender – a weevil smaller than a grain of rice – to help stop an exotic weed spreading through Australia's waterways. Cabomba (*Cabomba caroliniana*) is a fast-spreading aquatic weed from South America and unless addressed, could take over many of Australia's waterways.

<https://www.csiro.au/en/news/News-releases/2023/New-biological-control-released-against-invasive-cabomba-weed>

PLASTIC MUNCHING MICROBES FOR BIORECYCLING

Andrea Wilde CSIRO 5 January 2023

Microbial communities already treat the food waste in your compost bin. In the future, could they treat your plastic waste too?

Microbes have been biorecycling for millions of years by feeding on plant and animal waste. They use enzymes to break down complex molecules into simpler molecules, including water and carbon dioxide. The recipes to make these enzymes are in their genes. Might some microbes that survive on fallen leaves or the bones of dead animals be able to recycle plastics instead?

Dr Bronwyn Campbell is a postdoctoral fellow with our Environomics Future Science Platform (FSP). The FSP uses genetics to solve environmental problems like detecting species, determining the ages of fish and cleaning up waste.

"The amount of plastic waste that went to landfill in 2018 was more than the combined weight of everybody in Australia," Bronwyn said.

"It would be great if we could use plastic-munching microbes to degrade that plastic waste. And it would be even better if they degraded it into intermediate organic materials that we could turn back into plastics. "Instead of sending plastic to landfill or letting it end up in the ocean, we could bring our plastic waste into a circular economy model," she said.

The first part of Bronwyn's project is to go bioprospecting (exploring biological resources) for wild microbial communities. Bronwyn will start field work this year to collect wild microbes for biorecycling. She will be focussing on bacteria and fungi that can munch on plastic.

"I want to hunt for communities of microbes that can degrade plastic in environments where there is already a large amount of plastic. This includes landfills, plastic-polluted areas such as urban streams, and soils around plastic manufacturing and recycling facilities," Bronwyn said.

Back in the lab, Bronwyn will try to work out which of the microbial communities can degrade mixed plastics, and then optimise these processes. Most of the microbes known to degrade plastics are bacteria, but several fungal species can do it too. These microbes can generally degrade a few different types of plastic each. They come from environments like those where Bronwyn will be looking for microbial communities.

"In the future, I hope we can transform plastic waste into a circular resource. But the most important thing right now is to reduce the amount of waste we produce wherever we can," Bronwyn said.

The amount of plastic waste that went to landfill in 2018 was more than the combined weight of everybody in Australia.

Read full article [here](#)



THE PUB, SCIENCE AND.... ORCHIDS?

NSW Saving Our Species Program

As the saying goes, all good ideas are concocted in the pub – and in this case, we couldn't agree more!

[Find out](#) how new populations of a rare ground orchid, the endangered buttercup doubletail (*Diuris aequalis*), were discovered by local citizen scientists after a 'Science in the Pub' session.

The 'Spring Orchid Challenge' was launched during Biodiversity Month in September at a 'Science at the Pub' night in Canberra. Citizen scientists were encouraged to actively look for and photograph the buttercup doubletail while exploring nature reserves in their usual habitat in woodlands and forests along the Great Dividing Range in south-east New South Wales. Subsequently, 4 new populations were discovered.

"The more we can harness the knowledge of local communities, including through citizen science projects like this one, the better we can protect what we may not have previously known," Ms Canackle said.

This discovery is part of the successful NSW Saving our Species (SoS) program, backed by \$175 million over 10 years.

Brunswick Valley Landcare are planning to run some 'Science in the Pub' sessions locally. What topics would interest you? Please email Joanne if you have a suggestion (details at the end of the newsletter).



Threatened upland wetlands of the Northern Tablelands

NSW has an amazing diversity of wetlands. Coastal saltmarshes, mountain springs, upland swamps, coastal floodplain forests, coastal freshwater lagoons and peat swamps are all unique ecological communities which play an important role in biodiversity, however they are under threat.

Take a closer look at the endangered ecological community of the upland wetlands of the drainage divide of the New England Tableland bioregion and find out more about the SoS project to save these precious lagoons. <https://www.environment.nsw.gov.au/news/threatened-upland-wetlands-of-the-northern-tablelands>

REGENERATIVE AGRICULTURE

AVOCADOS, MACADAMIAS, COVER CROPS AND A LOT OF RAIN

Regenerative Ag Alliance, 13 February 2023

Laurel Park Avocados and Macadamias is situated on the Alstonville Plateau, halfway between Ballina and Lismore. It covers roughly 15 hectares (nearly 40 acres) of land on red Ferrosol. The farm has 2000 avocado trees, both Hass and Shephard, 500 macadamias and 140 beehives. Owner Tom Silver completed a Forestry degree at Southern Cross University before taking over the family farm in 2000.

Laurel Park became a research site for the University's trial of 'multispecies cover crops in subtropical horticultural plantations' in 2021. The first cover crop was planted in the interrow in June that year. The second cover crop was planted in November 2021.

Laurel Park has both conventional orchards and high-density planting, which is being trialled alongside the cover cropping. "Where we used to have one tree, we now have three..." Tom said.

The floods which destroyed Lismore in February and again in March 2022 (over 3m of rainfall) resulted in a loss of 560 of Laurel Park's avocado trees.

The main issue on the farm prior to this was Phytophthora. "There's good evidence that more organic matter will fight that. So, anything that involves more organic matter is good," Tom said.

Sourcing the seed was also tricky due to the floods. "I think all of the rural stores were just a bit messed up... I think they actually had stuff that floated away."

Dr Karina Griffin took soil samples at the beginning, middle and end of each trial. While it is too early to have any solid data on the effect of the multispecies cover crops, Tom has made a few observations:

- There's a lot less soil compaction in the cover-cropped areas, which is a good thing.
- He noticed a lot of bee and assassin bug activity when the cover crops are in place (assassin bugs are beneficial insects that prey on pest insects).
- In terms of the soil sampling data, no solid conclusions can be made just yet.

"There have been some differences in the cover cropped areas versus the control, but not large differences over a significant time period, so you can't make any management decisions based on the soil health test," Tom said, "But you can watch it over time and see what's happening."

Tom has enjoyed the University's trial process, saying it "makes a lot of sense" given the research that has been done into avocados and organic matter.

"My joke is when you think you've put enough organic matter on, put some more on. You just can't have enough; you see the soil and the trees respond to it," he said.

Read the full case study here: Case Study: [Laurel Park Avocados and Macadamias](#).

How feed additives could cut methane emissions from livestock by 90 per cent

Scientists appear to have solved one of the biggest environmental challenges facing the global meat industry — how to dramatically reduce methane emissions from cow burps. Now the race is on as several companies try to commercialise their feed-additive tonics as pills, pellets and powders.

<https://www.abc.net.au/news/2023-02-26/how-science-is-slashing-methane-from-cow-burps/>

Seeking Young Farmers

Are you an 18-40 year old farmer based in Lismore, Mid Coast or Glen Innes Severn? The Young Farmer Business Program and Resilient Ready are looking for farmers to feature in a new Disaster Ready Toolkit.

They need 15 minutes of your time to answer some questions, you get paid \$100, and they promote your business! Send an email to info@resilientready.org to find out more.

\$200 gift cards for flood-affected farmers

Were you impacted by the flooding and severe weather events of February and March 2022? Primary producers in 26 local government areas are eligible for the Small Gift Program, made possible by a donation from the NSW Farmers Glen Innes branch and additional funds from the NSW Farmers Natural Disaster Relief Fund.

Apply now. The program will close once the total fund of \$110,000 is exhausted <http://bit.ly/3JUr1Tk>

Check out the difference between regenerative and conventional pasture management

These two paddocks in central Victoria have been managed in two different ways as part of a research project to determine which method has the best financial outcomes.

So does regenerative farming stack up financially? <http://bit.ly/3jmTxSq>

This project is jointly funded through Southern Cross University and the Australian Government's National Landcare Program.

The trial involves the Regenerative Agriculture Alliance, Paraway Pastoral Company Limited, NutriSoil, AGF Seeds and Central Victorian Regenerative Farmers.



LA NINA ON THE WAY OUT

CSIRO 1 February 2023

Climate models indicate La Niña is on the way out, with El Niño conditions expected later this year. CSIRO Climate Scientist Dr Wenju Cai explains what this means for Australia's weather and how changing conditions will affect the country.

Dr Wenju Cai, CSIRO climate scientist, said: Is La Niña really on the way out? What do the climate models tell us?

We are in the mature season of the current three-consecutive La Niña years. During the three years, heat has been stored in the equatorial Pacific Ocean. There is no precedent for four-consecutive La Niña years. Models that predict the El Niño Southern Oscillation (ENSO) cycles are indicating a demise of the current La Niña condition.

Does this mean El Niño is on the horizon?

With so much heat charged in the equatorial Pacific, an El Niño is readily triggered by relaxation of the trade winds over the equatorial Pacific. Many models are predicting an El Niño by the northern hemisphere summer months. ENSO predictions are more accurate after June, when noise is low. Several previous three-consecutive-year La Niña events, such as the 1973-1975 or 1983-1985 events, were followed by an El Niño.

What will El Niño mean for Australia?

During El Niño, drought occurs over eastern and north-eastern Australia in spring and summer. During winter and spring, a developing El Niño often drives an Indian Ocean Dipole (cooling in the eastern Indian Ocean), inducing droughts over southern Australia in the rain seasons. Overall, Australia experiences drought, higher temperatures, bushfires and more intense and frequent heatwaves on land and sea, and these extremes are likely exacerbated by warming from increasing greenhouse gases.

Droughts and heat waves cause damage to Australia's iconic ecosystems, such as the drying of the Murray and Darling Rivers, and coral bleaching on the Great Barrier Reef. Drought in the Murray Darling Basin and the drying Murray and Darling Rivers affect agriculture and mining activities, often reducing economic outputs by tens of billions of dollars. Bushfires kill and displace wild animals, and affect them in the aftermath by causing starvation, lack of shelter and predator attacks. One estimate suggested that the 2019/20 Black Summer Fires affected over three billion wild animals, most of which likely perished.

For further information and El Niño and La Niña explained:

<https://www.csiro.au/en/news/news-releases/2022/expert-commentary-from-la-nina-to-el-nino>

Meanwhile: New research led by scientists at CSIRO, Australia's national science agency, has shown that future increases in the strength of El Niño may accelerate the irreversible melting of ice shelves and ice sheets in Antarctica. <https://www.csiro.au/en/news/News-releases/2023/Stronger-El-Nino-could-cause-irreversible-melting-of-Antarctica>

EVENTS AND SEMINARS

Using Mycelium for Bush Regeneration Workshop

An incredible education and practical hands-on workshop on using mycelium for low succession plants (“weeds”)

WHEN : March 12th 9am – 3pm

WHERE: The Pocket

For further information see: [Mycoregen – weforestearth](#)

'Land-use Impact on Water Quality - History of the Richmond River' Healthy rivers, healthy fish and healthy people.

When: 4.00 - 6.00PM, Monday 27 March, 2023

Where: U Block Theatre, Southern Cross University, Lismore, [See map](#).

Free Seminar - RSVP to [SoilCare](#)



Matt's veterinary career commenced in a mixed dairy cattle practice on mid-north coast in 1995. He transitioned to aquatic animals from 2000 working for NSW Fisheries at Wollongbar Agriculture Institute. In 2005, he founded and became Director of Future Fisheries Veterinary Service Pty Ltd. His business provides field, laboratory, research and technical aquatic animal health and production veterinary services to commercial aquaculture and wild fisheries since 2005. Matt undertakes considerable work in the area of how contaminants influence fisheries at the interface of land and water. This has included working with OzFish Unlimited, speaking at Riverfest, Woodford Planting festival, Australian Veterinary Association & Engineers Australia.

2023 AUSTRALIAN BUSHFOOD CONFERENCE. 27 - 28 May 2023

For those with further interest in Bush Food, you may like to travel to the 2023 Australian Bushfood Conference in North Maclean, not far from Jimboomba.

Venue: Australian Technology and Agricultural College 4808-4822 Mount Lindesay Highway North Maclean, Qld, 4280

Hosted by: Australian Technology and Agricultural College and Queensland Bushfood Association

2023 Theme: Design and Development of Urban Landscapes for Bush Food Production

During the two-day conference, speakers will delve into the following topics through a combination of educational lectures and interactive workshops:

1. Design of urban landscapes for bush food production – including parks, gardens, rooftops etc, while taking into consideration plant selection.
 - Parks, gardens, rooftops etc
 - Plant selection
2. Development and management of Bush foods in the urban environment
3. Application and use of bush foods - including traditional uses and management
4. The culinary uses of bush foods

On Friday 26th May, there will be an opportunity to take part in a bushfoods tour to showcase the local bush food industry.

TICKETS ON SALE SOON - EARLY BIRD PRICING OFFERED. For more information email:

bushfoods@atac.qld.edu.au. For assistance booking accommodation for this event, contact Nina du Preez at Travel Partners. Nina.dupreez@travelpartners.com.au Ph 0439 614 562

MORE EVENTS AND SEMINARS

REGISTER NOW FOR NEW LANDCARE FARMING WEBINAR

The new Landcare Farming webinar Maximising Ecosystem Opportunities to Fit Your Business: Biodiversity is bringing together five industry experts for an exclusive webinar exploring the importance of biodiversity literacy for producers and the key principles of environmental accounting.

By attending this webinar you will:

- Grow your understanding of biodiversity on-farm and the emerging biodiversity markets
- Improve your capacity to participate in emerging environmental markets
- Develop your knowledge of environmental condition and natural capital accounting systems
- Enhance your skills in natural capital accounting and environmental assessment.

The webinar will be held on Tuesday April 4 at 1pm (AEST). More information

<https://landcareaustralia.org.au/webinars/biodiversity>

Farmers and friends free lunch get together.

A year on from the floods we are getting together to discuss some learnings and ideas of how we can make our land more resilient going into the future. Enjoy a feed and a chat with fellow farmers. For other flood anniversary events please see the attached doc.

WHERE: The Paddock Mullumbimby

WHEN: March 24th 1pm – 4pm

Farmers & Friends - Seeding Connection Tickets, Fri 24/03/2023 at 1:00 pm | [Eventbrite](#)

Maximising Ecosystem Opportunities to Fit Your Business: Biodiversity on

WHEN : Tuesday April 4 at 1pm AEST.

WHERE : Online Zoom call download calendar details below.

Join Zoom Meeting <https://us02web.zoom.us/j/86464191503>

Meeting ID: 864 6419 1503

In an industry increasingly concerned with aligning best practice land and biodiversity management with profitable production, improving biodiversity literacy and understanding environmental accounting methods is critical for producers.

In this exclusive webinar, Landcare Farming will bring together five industry experts to help:

- Grow your understanding of biodiversity on-farm and the emerging biodiversity markets
- Improve your capacity to participate in emerging environmental markets
- Develop your knowledge of environmental condition and natural capital accounting systems
- Enhance your skills in natural capital accounting and environmental assessment

The presentation will last for 1 hour and 40 minutes followed by 20 minutes of audience questions.

FUNDING

Highways and Byways Funding

Each year the charity 'Highways and Byways' offer small grants to community organisations to address disadvantage and inequality, especially in rural, regional and remote areas of Australia. Our 2023 program theme is 'Healing and Growing Together' in recognition of the social and environmental challenges confronting Australians in recent years.

Grants up to \$4,000 are available to community organisations for environmentally focussed projects, projects that encourage community connection and initiatives that foster indigenous identity and cultural connections.

Perhaps these grants would be of interest to organisations within your municipality? I have attached some further information should it assist you. Further information is also available via our website: www.hb.org.au/grants. Applications close on 15 March 2023.

Critical Producer Grant

Up to \$100,000

Closes 30 June 2023

The objective of the program is to help primary producers and primary production enterprises impacted by the February and March 2022 NSW Severe Weather and Flooding events to rebuild and recover in the medium to longer term with the aim of supporting job security, future resilience and enabling future production.

Further information: <https://www.nsw.gov.au/grants-and-funding/critical-producer-grant>

Gallagher Landcare Electric Fencing Grants

Applications for the 2023 Gallagher Electric Fencing Grants will launch on March 6. A total pool of \$176,000 (ex-GST) of support is available for up to 22 groups or individuals for use on conservation and biodiversity protection projects aligned with the priority areas of conservation exclusion/inclusion fencing, riparian protection and farm dam restoration. Each grant is valued at up to \$8000 (ex-GST) and must be used on electric fencing materials that are determined in consultation with the applicant's local Gallagher Territory Manager. More information will be available on the [Gallagher Grants - Landcare Australia](#).

New Grant Opportunity: Future Drought Fund: Long-term trials of drought resilient farming practices program.

The Australia Government is inviting consortia via an open competitive process to apply for grants under the 'Long-term Trials of Drought Resilient Farming Practices Program' (the program). It is anticipated that the program will support grants valued up to \$8 million per grant, depending the scope and complexity of the project. The program's overarching objective is to investigate innovative and transformational cropping, grazing and mixed farming practices through the lens of drought resilience and associated risk management.

Applications are now open and close 9.00pm AEDT Wednesday 15 March 2023. Find out more on [Grant Connect](#) (GO ID 5976)

MORE FUNDING

Environmental Trust grants for Protecting Our Places

The NSW Environmental Trust is now inviting applications to the Protecting Our Places grant program. Applications close 5pm on Friday 24 March 2023.

A total of \$500,000 in grant funding is available in this round for Aboriginal community groups and organisations throughout NSW for projects that encourage and empower Aboriginal communities to protect, conserve and restore cultural landscapes and waterways that are of importance to local Aboriginal communities.

<https://www.environment.nsw.gov.au/funding-and-support/nsw-environmental-trust/grants-available/protecting-our-places>

Telstra's Connected Communities Grant Program will boost support for communities across remote, rural and regional Australia to improve resilience, environmental sustainability and liveability through the power of connection.

The program offers grants up to \$10,000 for not-for-profit community organisations that are providing access to information, technology, education and facilities to support their communities to embrace new technologies and ways of working to build social capital and digital capability. The program seeks to foster:

- Resilient communities that are well prepared and socially connected when disaster strikes with the ability to renew and recover together;
- Sustainable communities that are diverse and inclusive, planning for the health, wellbeing, and prosperity of their people and the planet; and
- Liveable communities that have digital capability, and help to equip individuals with the skills to live, learn and work in a digital society.

Applications close 5pm AEDT, 30 March 2023

Further information: <https://frrr.org.au/funding/place/telstra-connected-communities-program/>



WEED OF THE MONTH

Tropical Wild Petunia *Ruellia brevifolia*



Ruellia brevifolia, the tropical wild petunia or red Christmas pride, is an ornamental plant in the family Acanthaceae. It is native to South America, from Colombia to southern Brazil and northern Argentina. https://en.wikipedia.org/wiki/Ruellia_brevifolia

There is not a lot of information about this weed, for example it is not listed on the Department of Primary Industries Weed Wise website. This information here was sourced from <https://inaturalist.ala.org.au/taxa/168209-Ruellia-brevifolia>

First iNaturalistAU observation was on June 02, 2018 in Buderim Forest Park, Queensland, Australia

This weed is often confused with:



Ruellia amoena (above)

and Scarlet Creeper *Ipomoea hederifolia* (left)



WORKING BEES

-Why not get out and get involved in one of our local groups?

For all Landcare Working Bees please wear protective clothing - long pants, long-sleeved shirt, closed-in shoes, hat, gloves and bring water, sunscreen, and insect repellent. Please always contact the group co-ordinators before attending a working bee as plans do change!

Bangalow Land and Rivercare, Bangalow

WHEN: every Saturday 8:30am

WHERE: find out from

CONTACT: Noelene Plummer bangalowlandcare@gmail.com 0431 20 0638 6687 4470

Friends of Lilli Pilli (Byron Bay)

WHEN: 1st Saturday of the month 3:30pm - 5:00pm

WHERE: At entrance to Lilli Pilli (contact Deb).

CONTACT: Deb Jorgensen deborah.jorgensen60@gmail.com 0434 254 802

Green and Clean Awareness Team, Byron Bay

WHEN: 3rd Sunday of the month 9:00am

WHERE: Meet Main Beach, Byron Bay

CONTACT: Peter Farmakis peter.farmakis@gmail.com 0488 715 565

Heritage Park Landcare, Mullumbimby

WHEN: Saturdays 9:00am – 11:00 am

WHERE: Heritage Park, Mullumbimby

CONTACT: Diana Hughes bromspot@gmail.com

Jinangong Landcare, Ocean Shores

WHEN: 1st Sunday of the month

WHERE: The Tunnel Road, Ocean Shores

CONTACT: Ian Parer ianparer@hotmail.com

Mullum Town Landcare, Mullumbimby

WHEN: last Sunday of the month

WHERE: find out from John Tann

CONTACT: John Tann johntann99@gmail.com

Ocean Shores Landcare, Ocean Shores

WHEN: each Thursday at 8.30 – 11.00 am (8.00am DST)

WHERE: corner of Yallakool Drive and Warrambool Road, Ocean Shores

CONTACT: David Kemp dnkemp77@gmail.com 0427 650 861

Tallowood Ridge Locality Landcare, Tallowood Ridge Mullumbimby

WHEN: Second Saturday of the month from 3pm (winter), 4pm (summer).

WHERE: Gathering Tree Pocket Park, Cockatoo Cres Tallowood Ridge Estate

CONTACT: Joanne McMurtry jmcmurtry@bigpond.com

Suffolk Park Dunecare

WHEN: 1st Saturday of the month

CONTACT: Helen Brown hellyh@bigpond.com 6685 4964

Tyagarah Landcare

WHEN: Each Thursday 9:00am – 11:00am

WHERE: 23 Prestons Lane, Tyagarah

CONTACT: Bela Allen bela_allen@yahoo.com 6684 7113

Can't find a group near you? We have many other groups who meet on an ad hoc basis (contact us for more details) or if there isn't an existing group in your neighbourhood or you are interested in looking after a particular area, BVL can help you to form a locality group under the BVL umbrella.

LINKS

- Arakwal <http://arakwal.com.au/>
- Australian Association of Bush Regenerators <http://aabr.org.au>
- Border Rangers Alliance http://www.greasternranges.org.au/border_ranges/overview/overview
- Bangalow Koalas <http://www.bangalowkoalas.com.au/>
- Bangalow River and Landcare <http://www.bangalowlandcare.org.au/>
- Big Scrub Landcare <https://www.bigscrubrainforest.org.au/>
- Brunswick Valley Landcare <http://www.brunswickvalleylandcare.org.au/>
- Byron Bird Buddies <http://www.byronbirdbuddies.com.au/>
- Byron Community College <http://www.byroncollege.org.au/>
- Byron Shire Council <http://www.byron.nsw.gov.au/>
- EnviTE www.envite.org.au
- Environmental Trust <http://www.environment.nsw.gov.au/grants/envtrust.htm>
- Friends of the Koala www.friendsofthekoala.org
- Federal Landcare Inc federalandcare@gmail.com
- Local Land Services www.northcoast.lls.nsw.gov.au
- North Coast Local Land Services <http://northcoast.lls.nsw.gov.au/>
- Border Ranges Richmond Valley Landcare www.brrvl.nsw.gov.au
- Mullumbimby Community Gardens <http://mullumcommunitygarden.wordpress.com/>
- North Coast Nature <http://www.northcoastnature.org.au/>
- Richmond Landcare Inc. <http://www.richmondlandcare.org/>
- Rous County Council (formerly Far North Coast Weeds) <http://rous.nsw.gov.au/>
- Soilcare http://www.soilcare.org_
- Tweed Landcare Inc. <http://www.tweedlandcare.org.au/>
- Wilson's Creek Huonbrook Landcare <http://www.wilsonscreeklandcare.mullum.com.au/>

**For information about Landcare or other natural resource issues in Byron shire please contact
Landcare Coordinator, Alison Ratcliffe 6626 7028**

(Mon, Tues, Wed)

info@brunswickvalleylandcare.org.au

Community Liaison Officer, Joanne McMurtry 6626 7201

jmcmurtry@brunswickvalleylandcare.org.au

www.brunswickvalleylandcare.org.au

