Coreposis lanceolata (Coreopsis), a roadside perennial weed that prefers poor soil types is now becoming an environmental weed of open grasslands and woodlands. Image: Tony Cook

Featured stories in this edition

- Glyphosate under review by the federal regulators
- Local Land Services new regional strategic weed management plans
- Latest news regarding the next NSW Weeds Conference
- Singapore daisy alert
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Editor’s apology
This edition of A Good Weed was finished much later than anticipated and such I offer my apologies. The next edition (Winter 2017 issue #79) will be published in due time. I hope you enjoy the content in this edition.
Tony Cook, Newsletter editor
Are we close to losing glyphosate?

Is our primary herbicide of choice, glyphosate, under threat of a permanent ban from our federal regulator, the Australian Pesticides and Veterinary Medicines Authority (APVMA)? This is a possibility if the APVMA conducts a review of the herbicide and deems it inappropriate for use in Australia. Pesticide reviews are a regular part of business for the APVMA. They have been underway since 1995 and they have a list of candidate pesticides to review and many common herbicides have already been intensively reviewed.

Glyphosate is a broad-spectrum herbicide which works by inhibiting an enzyme found in plants. There are around 500 products containing glyphosate registered for use in Australia. Glyphosate has been registered for use for over 40 years.

What triggers a need to undertake a pesticide review?

Occasionally, credible new scientific information may be generated after a product has been registered that suggests the existence of previously unknown risks to human health, animal or crop safety, the environment or trade, or that suggests product ineffectiveness. If this happens, the APVMA can initiate a reconsideration process to assess the identified risk and determine whether changes are needed to ensure that the product can continue to be used safely and effectively.

What common herbicides have undergone the review process since 1995?

<table>
<thead>
<tr>
<th>Herbicide active</th>
<th>Product name</th>
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<tbody>
<tr>
<td>Atrazine</td>
<td>Gesaprim</td>
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<tr>
<td>Diquat (review in progress)</td>
<td>Reglone</td>
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<tr>
<td>Diuron</td>
<td>Diurex</td>
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<tr>
<td>Paraquat (review in progress)</td>
<td>Gramoxone</td>
</tr>
<tr>
<td>Glyphosate</td>
<td>Roundup</td>
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Once the results of the review of paraquat and diquat are completed, A Good Weed will inform readers of the outcome. Moderate restrictions have been put in place for diuron after some environmental concerns. It appears the APVMA have reviewed many more insecticides than herbicides due to concerns over occupational health and safety and environment. The APVMA have nominated some herbicides for review in 2017 and 2018; simazine and picloram being targeted. Picloram is a common active ingredient in Grazon and Tordon products.

Diquat and paraquat are useful herbicides and can either be used for aquatic weed control, crop desiccation, broad spectrum weed in fallows and weed seed set control. It is a vital weapon to manage glyphosate resistant weeds.

Why concern was raised over glyphosate?

A few years ago a report from the International Agency for Research on Cancer (IARC) concluded that glyphosate was probably carcinogenic. This conclusion understandably caught the attention of the media and left the chemical industry, farming community, federal regulators, weed managers and the broader community asking many questions.

Assessment of the IARC report by the APVMA

New studies, assessment reports and scientific opinions on approved pesticides or veterinary medicines are generated regularly and the APVMA evaluates the scientific merits of these before deciding on whether a formal reconsideration—or other regulatory action—is appropriate.

The APVMA evaluated the IARC report and other contemporary scientific assessments as part of an established chemical review nomination process.

The APVMA conducted a weight-of-evidence evaluation that included a commissioned review of the IARC monograph by the Department of Health, and risk assessments undertaken by expert international bodies and regulatory agencies.

The APVMA has concluded that glyphosate does not pose a carcinogenic risk to humans and that there are no grounds to its directions of use.
The APVMA has completed its assessment of the IARC report and has concluded that the use of glyphosate in Australia does not pose a cancer risk to humans.

The IARC assessment explained

The IARC assessment looked at the intrinsic toxicity potential or ‘hazard’ of the chemical glyphosate as a cancer-causing agent only. Indoor emissions from burning wood and high temperature frying, some shift work, and consumption of red meat are also classified as probably carcinogenic to humans and are in the same category as glyphosate. Agents classified by IARC in the highest category (carcinogenic to humans) include all alcoholic beverages, consumption of processed meat, solar and ultraviolet radiation (ie sunlight), engine exhaust (diesel), outdoor air pollution, occupational exposure as a painter, and soot and wood dust.

When making an assessment of the hazards associated with these substances or lifestyles they did not consider how the risks can be managed in actual use situations and they did not assess the risk of glyphosate causing cancer when used according to the label instructions in a registered chemical product.

As part of the regulatory process undertaken by the APVMA and pesticide regulators in other countries, a hazard assessment is just one part of the overall risk assessment required to determine the risks for people using a formulated chemical product.

It is not the role of the IARC to consider how a formulated chemical product is used, or how human exposure can be minimised by following safety directions on a product label. This means the findings of IARC cannot be directly compared to assessments conducted by regulatory authorities for the purposes of approval or registration of a pesticide product—assessments by regulators include consideration of appropriate risk mitigation measures to allow safe use.

The controversy of the IARC report was far reaching, causing concern in other countries.
Other reviews on glyphosate

To put things into perspective, many expert agencies from various countries have evaluated glyphosate’s potential as a carcinogen. The consensus recommendation is that glyphosate poses no risk of causing cancer that its regulated use (via label directions) will remain. This is an excellent outcome as many other pesticides have either been banned or their use patterns restricted after the review process. Countries that have reviewed the use of glyphosate are: Germany, Korea, USA, New Zealand, Australia, Canada, Japan and many European countries.

Lessons learnt

We have an excellent regulatory process in Australia that regularly reviews data and ensures that modern pesticides are as safe as possible to the user, environment and food markets. If need be, some products are banned and some may have tighter controls. It may be easy for some to use examples of harmful pesticides of the distant past but times have changed and the range of products now on the market have passed many stringent hurdles to get access in Australia. The herbicides we have available today may not be with us forever. We need to use all our herbicides wisely. An environmental disaster via poor application or total negligence could trigger as ‘cause for concern’ by the APVMA and a potential review of that herbicide.

TIME IS RUNNING OUT - nominations for the NSW Buerckner & Stephenson Local Government and the NSW Weed Industry Weed Professional Awards closes on the 30 June 2017.

The Weed Society of NSW will soon be calling for nominations for the NSW Buerckner & Stephenson Local Government Weed Professional Awards and the NSW Weed Industry Award. The Awards will be presented at the 19th NSW Biennial Weeds Conference, which will be held in Armidale from 16 to 19th October 2017.

The Awards acknowledge the work of NSW Government, NSW Local Government and Community Weeds Professionals for their outstanding contribution towards protecting NSW from the impacts of weeds.

There will be three categories in this year’s Award:
The Buerckner Award – for outstanding contribution to the on the ground control of weeds in NSW.
The Stephenson Award – for outstanding contribution to planning and managing weed management programs in NSW.
The NSW Weed Industry Award - For outstanding contribution to weed management in NSW

Nomination forms for each Award is available from The Weeds Society of NSW Inc. website at http://nswweedsoc.org.au
Prizes
The winners of these awards will each receive a presentation medal and a perpetual trophy to enjoy for the next two years. For the NSW Buerckner & Stephenson Awards, the Weed Society of NSW and The NSW Weeds Officers Association have each generously donated $500.00 to each winner* to be used towards travel costs to attend the 20th NSW Biennial Weeds Conference in 2019 or the 21st Australasian Weeds Conference in Sydney in 2018. For the NSW Weed Industry Award, the Weed Society of NSW has donated $500.00 to the winner* to be used towards travel costs to attend the 20th NSW Biennial Weeds Conference in 2019 or the 21st Australasian Weeds Conference in Sydney in 2018.

*To claim the $500 prize of the donating Society, the winner -

Must be a current financial member of the donating Society (The NSW Weeds Officers Association or The Weed Society of New South Wales Inc), and has continuously been a financial member for more than one year.

The total prize to each winner is $1,000 if the winners are a member of both organisations. The winner must gain their employer’s approval to attend the conference. If the employer does not grant approval the money may be used towards training costs.

To apply for membership to the NSW Weeds Officers Association contact Mel Wilkerson on (02)69412547 or email ranger@snowyvalleys.nsw.gov.au

To apply for membership to The Weeds Society of New South Wales Inc. visit http://nswweedsoc.org.au or contact the Secretary by emailing to – secretary@nswweedsoc.org.au

For more information
If you need any help with your nomination, please email to: khignell@lakemac.nsw.gov.au

Proudly supported by:
Brief update on the 19th NSW Weeds Conference

19th BIENNIAL NSW WEEDS CONFERENCE
16 - 19 October 2017 Armidale

“Experience the Highs – working smarter together”

The next instalment of the NSW Weeds Conference at Armidale from 16 to 19th October 2017 is shaping up to be an excellent four days.

Speakers, field days, catering, activities and trade displays are nearing the final stages of planning. The sponsorship of the conference is very pleasing, allowing conference fees to be reduced to $660 (for those being a member of the NSW weed society); a saving of $110 – well worth the $50 to join the our society. If you have work colleagues that aren’t members, please let them know about this great offer.

There are a few broad themes of the conference. The main theme is biosecurity, due to the introduction of the Biosecurity Act 2015. In addition, innovation and technology will once again be at the forefront of the conference. Other themes are collaboration and social marketing / extension.

Like the conference at Coff’s Harbour, there will be an active debate about the benefits and obstacles with reference to the new Biosecurity Act 2015. Some lively characters will present their arguments so the chairperson of the evening may need some strong will power. Sure to be one highlight of the conference.

The conference organizing committee has walked around the conference venue and found it to be superb. Being held at the university, it has all the equipment, space, break-out rooms, trade display areas, large lecture theatres and a beautiful setting to make this conference a likely winner.

Please use the following website to see the latest information about the conference and to register


Critical registration dates to remember:

Early Bird cut-off : September 1st 2017. Conference fees will increase from $660 to $815 for NSW Weed Society members. For non-members, the fees will increase from $770 for the early birds to $925 after the cut-off date.

Special rates apply for students – please see website.

The NSW weeds conference is proudly supported by:

[Logos of sponsors]

19th NSW Weeds Conference 2017

Experience the Highs

ARMIDALE

Dow AgroSciences
Move towards an electronic version of A Good Weed

In a sign of the times, as seen in most companies, corporations and individuals are moving to a near paperless domain, we at the NSW Weeds Society thought it would be time to ask our members whether we move towards an electronic version of A Good Weed.

Earlier this year, a survey monkey link was emailed around to our members to gauge the need for us to publish entirely electronically. Our other smaller publication, ‘The Punnet Trey’ is already sent out to members via email, and very well received.

As such we look at the results of the survey and what it means for you and our society.

Firstly we asked, do you agree with AGW changing to an electronic version? (50 responses)

A clear majority of our members are in favour of the change. However, to ensure that the minority of members that weren’t in favour could have their say a secondary question was posed; if you prefer a hard copy of AGW, please provide reasoning why (only 9 responses).

Nobody was in favour of the Dropbox option and a small minority of people thought downloading the file from the Weed Society website after login was preferred. However the vast majority of people prefer the file emailed directly to them.

The last question was designed to get the balance of stories in AGW that best match our membership. As such the question was phrased, what weed stories / themes would you like covered by AGW? (50 responses)

Although nearly half our members responded to the survey, it shows strong trends towards certain topics of interest. Topics that seem to be high on the list of interest are case studies of weed control, weed ecology, biological control, new technologies, herbicide resistance, updates about major events and environmental weeds.

Thank you to those members that took the time to fill out the survey. The Weed Society will endeavour to make the necessary changes that best match the needs of our members.
NSW is in the process of reforming its weed, pest and disease biosecurity legislation. Together, the NSW Biosecurity Strategy 2013-2021 and NSW Biosecurity Act 2015 (which repeals the Noxious Weeds Act 1993) provide a modernised and clear vision for safeguarding our primary industries, natural environments and communities from a range of biosecurity threats (pests, diseases and weeds), and the role of community-wide shared responsibility.

Local Land Services has been tasked with the implementation of some of the changes to weed management following the review conducted by the Natural Resources Commission on behalf of the State Government.

Hunter Local Land Services, General Manager Brett Miners said the first of those was the formation of Regional Weed Committees under each of the eleven Local Land Service regions and the development of a Strategic Weed Management Plan for each region.

“The estimated cost of weeds to NSW agriculture is $1.4 billion annually, environmental and social costs could double this figure, thus demanding appropriate planning and strategic implementation of control programs,” he said.

“The effective management of invasive weed species is crucial to maintaining the triple bottom line of social, economic and environmental sustainability.

“To achieve this, clear and practical methods of prioritising weeds and their control are most critical to maximise short and long term benefits.”

Mr Miners said Regional Strategic Weed Management plans prioritise weeds into various landscapes and detailed action plans.

“The plans are documents to be used by a wide cross section of the community responsible for natural resource land management,” he said.

“They set the strategic direction in weed management and control for the next five years, building on the achievements of the previous 14 Weeds Advisory Committees across the state.”

Regional Strategic Weed Management plans embrace the new tools available in the Biosecurity Act 2015. A central tool is the General Biosecurity Duty which places an onus on all land managers, public and private, and individuals who deal with a biosecurity matter (such as weeds) to use the most appropriate approach to manage that biosecurity risk, so far as is reasonably practicable.
Mr Miners said the plans clearly define priorities and community expectations for weed control based on risk and impact and provide reasonable options for management of priority weeds.

“The goals and objectives of the plans align with those of the NSW Biosecurity Strategy 2013-2021 and the Local Land Services Strategic Plan 2016-2021, which provides the overarching policy framework,” he said.

The goals of the Regional Strategic Weed Management Plans are that:
- Responsibility for weed biosecurity is shared by all people of the region.
- Weed biosecurity supports profitable, productive and sustainable primary industries.
- Weed biosecurity supports healthy, diverse and connected natural environments.
- Weed biosecurity is supported by coordinated, collaborative and innovative leadership.

Mr Miners said outcomes were expected to be achieved by these goals and more specific and measurable objectives and strategies were outlined in each of the regional plans.

“Measuring and reporting on progress against key performance indicators, is particularly important, as are practices that promote reflection and learning to inform decision making,” he said.

“Performance measures will be further developed following approval of the plans and will allow the reporting of progressive impacts of interventions and investment in priorities.”

Review and reporting of the performance against the plans will occur annually. A component of the review will be an evaluation of the regional contribution to the new biosecurity reforms and their influence on weed management across the regions.

Mr Miners said 11 draft plans were placed on public exhibition for seven weeks in 2017, with members of the public encouraged to provide input.

“A total of 140 submissions were received across the state on the Regional Strategic Weed Management plans,” he said.

“Local Land Services is currently working to finalise and submit the plans for Local Board approval and Ministerial release to align with the Biosecurity regulation, so to begin implementing the actions on-ground.”


Story supplied by Bridget Boreham (Principle Programs and Projects Officer—Local Land Services)
In the Summer 2016/17 Issue 77 Jim Swain has a lament about a number of issues, some of which are due to the historical changes which have occurred in the past and some of which have been imposed on the farm community from those with power.

The philosophy of ‘a more efficient service’ by government from research has left weed science bereft of personnel with something critical to say. The shrinking of diversity and the huge number of commercial amalgamations within the chemical providers has also decimated the staff on the ground, with fewer products to play with.

The mentality within regulatory authorities worldwide to deregulate large numbers of older chemical on the premise that they don’t measure up to current regulatory guidelines has taken away valuable tools which no one wants to defend because they are out of patent and therefore of no commercial interest.

When I applied for my first job out of University it was at Forbes as a candidate for an Advisory Officer for a Farmers Self Help group. These were the flavour of the month then. I was driven around the district and then interviewed and asked ‘What would be your first advice to our group?’ – my reply ‘Control the weeds on your crop edge because that is where all your future problems begin’. They were amazed because they just didn’t see dirty fence lines as a problem. I was offered the job.

Unfortunately the number of weed scientists with a strong understanding of the chemistry of the herbicide groups and their physiological mode of action together with a very clear understanding of their crop and its agronomy are diminishing by the day.

Knowing all the chemical groups and their active sites is one thing and important for control of resistance but that is only a very small aspect of weed science.

Also unfortunately if you are a farmer and you’ve had 10 years of drought, weeds may not be of as much concern as survival.

Peter McMaugh’s comments on changes in the weed industry

There is still a large demand for face to face knowledge transfer such as this field day for fleabane management at Tamworth

Image: Tony Cook
Where once Agriculture in general was seen as the umbrella for all things, weeds included, today each single industry within agriculture has to take responsibility for itself – be it wheat, pulses, cotton or whatever – broadacre or small holding and the onus has been thrust right back onto the members trying to make a living. Large scale operators can afford their own specialist agronomists. The smaller operators can’t, and the willingness to share knowledge is not abundant.

Until the big wheel turns again and the shortage of food makes everyone feel the pinch, there isn’t likely to be much change in the current philosophy. You only get action when the problems hurt either the hip pocket or the community as a whole.

The model for all agriculture is there in the seeds industry where the stringent requirements for cleanliness for certification of the end product bring a premium. It is a model that bears a lot of looking at.

The shift of focus within the society is not because the society has consciously focused elsewhere but because the agriculture sector has by and large opted out. It will only be when it recognises its needs and realises that there are specialists who can take them further, that the members of this sector will swing back into the society.

Yes, we could do with more field days and informative discussions but they have to have a focus that is relative to a need. You won’t get people to make time in busy schedules to go to a talk fest about nothing.

Part of the obligations of the executive committees is to identify the holes where people need extra information and find interesting and attractive ways to fill the holes. Maybe some regional brainstorming initiatives would be a good place to begin.

This newsletter is consists of many voluntary stories from people like Peter McMaugh, Bridget Boreham, and Paul Marynissen (next page). If you have any interesting stories please feel free to contact the newsletter editor Tony Cook : editor@nswweedsoc.org.au

The Weed Society of NSW committee thank the generous efforts of those contributed articles to make this newsletter relevant to our members
I would like to share my experiences about a weed I have been recently trying to get control of. It is an intractable weed infestation that is the Steven Segal of the weed world, by which I mean it is “Hard to kill”.

I have been battling with Singapore Daisy (*Sphagneticola trilobata*).

This used to be a staple of most nurseries sold as a rockery plant and I too am guilty of selling it in my nurseryman days. It was recommended because it thrives in full sun and no water situations. Who would have guessed that it also thrives in heavy shade standing water situations in a wetland?

It was first found next to a drainage line in dumped building and garden waste. For a plant that is usually known as a ground cover, it was approximately 1 metre high and covered about 400m$^2$.

It had crossed a permanently flowing creek and spread into a wetland, growing happily amongst sagittaria and persicaria. Soon after treatment commenced, I went on holidays and drove to Cairns.

This weed (along with Siratro) became a common thread of the journey being found in increasing density the further north I went. While standing on the platform of the Kuranda railway in Cairns, I noticed a dense infestation of the weed on the other side of the line. I mentioned to my wife that it was the same weed I had just started to control. I didn’t realise that standing behind me were three rail workers from the line waiting to hitch a ride on the train to a worksite up the line. One of the guys asked me where I was from; I told him I was from Wyong. He was surprised I had it and asked how much I had. “400 square metres”, I replied to which he said “is that all? Then kill it, kill it now, kill it with extreme prejudice”. He motioned to the other side of the line where the weed grew lushly, “Three years ago that was all Alligator weed. We had to dig a trench through there a month ago. Can’t find the Alligator weed anymore, not one single bit”.

That was June 2014 and I have since been continually attacking the infestation. It can grow just on a metre in length in a week in warm wet conditions and flower in less than two weeks if not checked. It still keeps appearing even during winter. I check the original site and a large buffer around this area. While on leave over the Christmas New Year’s break for 3 weeks this year, the weed started in a new spot next to the existing site and covered 150 square metres to 1 metre deep in these three weeks. This new infestation was growing in water about 300mm deep and under full shade!

My message to anyone with this weed in their area, particularly near wet areas is, “kill it, kill it now, kill it with extreme prejudice”. Not exactly original but worth emphasising.
Singapore Daisy – get to know this weed

Description

Singapore daisy is a vigorous ground cover or low climbing plant. The leaves are lush glossy green, usually 3 lobed and in pairs up the stem 4–18 cm long and 1.5–8 cm wide.

Singapore daisy produces yellow to orange-yellow daisy flowers about 2 cm. The flowers are held above the leaves on short leaf stalks. Seeds are elongated, brown 4–5 mm long. The amount of seed per flowers varies greatly.

Distribution

Habitat and distribution

Singapore daisy is a garden escapee and native of tropical America. It prefers moist areas on a range of soil types. Found in gardens, parks, bushland, disturbed areas, along roadsides, lawns and footpaths.

It is becoming a problem by invading wetlands, irrigated areas and around drains.

Life cycle

Flowers mostly spring to autumn but will flower all year round. Most reproduction is vegetative, from stem nodes.

Managing Singapore daisy

As Singapore daisy likes to establish in disturbed areas, plan the area you are clearing. Take extra care when mowing or slashing around areas planted where Singapore daisy is planted so small fragments are not spread to other locations.

Methods of spread

Singapore daisy produces variable amounts of seeds but is mainly spread by cuttings via slashing and pruning.
Singapore Daisy – get to know this weed

**Origin**

Native to Mexico, Central America (i.e. Belize, Costa Rica, Guatemala, Honduras, Nicaragua and Panama), the Caribbean and tropical South America (i.e. French Guiana, Guyana, Surinam, Venezuela, Brazil, Bolivia, Colombia, Ecuador and Peru).

**Growth Habit**

A long-lived (i.e. perennial) herb with a creeping (i.e. prostrate), scrambling or climbing habit. This mat-forming (i.e. stoloniferous) plant often creates a dense ground cover (usually 15-30 cm tall but occasionally up to 70 cm tall) that crowds out the growth of other species. It may also climb a short distance up trees or over other vegetation.

**Physical control**

Hand pull and dig up runners. The plant will regrow from the smallest cutting so dispose of waste carefully. Either burn waste or put into a black plastic bag and place in the sun for a few days before putting into the refuse bin. Repeat hand pulling will need to be done as new lawns.

**Information for this article was sourced from the following agencies’ websites:**


http://avh.ala.org.au/occurrences/search?taxa=Sphagneticola+trilobata#tab_mapView
In the next edition of A Good Weed fleabane gets the spotlight

The Weed Society of New South Wales Inc. acknowledges the generous support of the following organisation for their sponsorship of the Society and this Newsletter