

# WeedWise

Volume 15 Issue 3 April 2015

Newsletter of the Weed Management Society of SA



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## From the President,

Welcome to the March 2015 edition of WeedWise.

Since our last issue the Executive Committee has met and begun discussions on future directions for the Society. Some very exciting ideas have been discussed – stay tuned for more detail to follow!

Sam Buxton and the team have assembled another excellent issue for us. There is important information about Phase Three of the PIRSA NRM Biosecurity Declared Plant Review. Twenty-four new weeds have been declared in SA, and some others have been removed from the list. A new App to assist with weed control has also been released by PIRSA NRM Biosecurity. Together these are significant steps forward in managing SA's weed problems.

There is a great article on weed control at the coal face to remind us that words on a page have never yet killed a weed – it takes action on the ground! This article describes the toil and (sometimes) frustration involved with long-term management efforts.

There is also a salutatory lesson from New Zealand and Australia about potential weed incursions via the net, courtesy of express freight. A very useful resource link to images of plant herbicide damage symptoms is described, and finally there is an invitation to participate in a Chemical Free Weed Control Workshop.

Happy reading!!

Best wishes, John Heap

## WEED ARTICLES NEEDED

Would you like to contribute an article, book review or some of your technical expertise battling a weed in your patch?  
Is there an event you would like to publicise?

We welcome submissions for the next issue of WeedWise by  
1st May 2015

Contact: Sam Buxton Stewart  
Email: [jstewart01@dodo.com.au](mailto:jstewart01@dodo.com.au)

# New Weeds Declared



Photo credit: Deb Agnew, WMSSA

Figure 1: Buffel grass (*Cenchrus ciliaris*)

The State Government has declared an additional twenty-four weeds to reduce the impact of pest plants across South Australia. Sustainability, Environment and Conservation Minister Ian Hunter said the declaration of the weeds under the Natural Resources Management Act 2004 is in response to requests from the Natural Resources Management (NRM) Boards and follows consultation with communities and industry. "I have prohibited the sale of all these plants, and made the control or destruction of some of them enforceable," Mr Hunter said. "Biosecurity SA and weed experts from the eight NRM regions have been comprehensively reviewing the declared plant schedule to keep weed management programs in line with current needs. This includes new policies on fifty-one weeds."

Five formerly declared plants, including onion weed (*Asphodelus fistulosus*), have been removed from the declaration because legislative backing is no longer needed for regional control activities, while the state policies on twenty-two other declared plants such as salvation jane (*Echium plantagineum*) have been updated. "An important change is the declaration of buffel grass (*Cenchrus ciliaris*), an introduced grass that has invaded the semi-arid rangelands and is encroaching southwards," Mr Hunter said. "Buffel grass is known as a transformer weed in rangelands as it can change the character of the vegetation over wide areas."

"Other plants now prohibited from sale anywhere in South Australia include invasive garden plants such as gazania (*Gazania rigens*), sweet pittosporum (*Pittosporum undulatum*) and white arum lily (*Zantedeschia aethiopica*), with some exemptions for known sterile cultivars. "The regional NRM Boards have asked me to declare these weeds now so that we can minimise their spread by coordinated management. We aim to protect native vegetation, productive lands and the community from weed impacts."



Figure 2: Gazania, (*Gazania rigens*)

Photo credit: Nicole McGuinness, WMSSA



Photo credit: Deb Agnew, WMSSA

Figure 3: African rue (*Peganum harmala*)

In addition to the statewide bans, the declaration of the pest plants will assist the NRM Boards to control the following specific species causing problems within their region:

- Adelaide and Mount Lofty Ranges NRM Region – ornamental fountain grass (*Pennisetum setaceum*), silverleaf nightshade (*Solanum elaeagnifolium*), swamp oak (*Quercus bicolor*), arum lily, sweet pittosporum and gazania.
- Alinytjara Wilurara NRM Region - buffel grass, african rue (*Peganum harmala*) and carrion flower (*Stapelia variegata*).
- Eyre Peninsula NRM Region - carrion flower, lincoln weed (*Diplotaxis tenuifolia*), silverleaf nightshade, bifora (*Bifora testiculata*), fountain grass and buffel grass.
- Kangaroo Island NRM Region - bluebell creeper (*Billardiera heterophylla*), lincoln weed, silverleaf nightshade and italian buckthorn (*Rhamnus alaternus*).
- Northern and Yorke NRM Region – nightstock (*Matthiola longipetala* ssp. *bicornis*), lincoln weed and buffel grass.



## New Weeds Declared (cont.)

- South Australian Arid Lands NRM Region - african rue, buffel grass and carrion flower.
- South Australian Murray Darling Basin NRM Region - gaza- nia, nightstock, silverleaf nightshade, buffel grass and white weeping brooms (*Retama raetam*).
- South East NRM Region - apple of sodom (*Solanum linnaea- num*), lincoln weed, spiny rush (*Juncus acutus* ssp. *acutus*), gazania and white weeping brooms.

The full gazette list of declared plants and various summary documents and information resources can be found at: [http://www.pir.sa.gov.au/biosecurity/weeds\\_and\\_pest\\_animals/plant\\_pests\\_in\\_south\\_australia](http://www.pir.sa.gov.au/biosecurity/weeds_and_pest_animals/plant_pests_in_south_australia)



Photo credit: Nicole McGuiness, WMSSA

Figure 4: Bluebell creeper (*Billardiera heterophylla*)

The new policies on these weeds are available on the PIRSA website at: [www.pir.sa.gov.au/biosecuritysa/nrm\\_biosecu- rity/weeds/pest\\_weed\\_policies](http://www.pir.sa.gov.au/biosecuritysa/nrm_biosecu- rity/weeds/pest_weed_policies).

Further information on declared weeds is available from Biosecurity SA on 8303 9620 or at your regional Natural Re- sources Centre.

## Free Weed Control App



SA Weed Control

Primary Industries and Regions South A..

UNINSTALL

OPEN

100

Downloads

1.5

2



Lifestyle



Similar

Essential information about the control of weeds declared in South Australia.

READ MORE

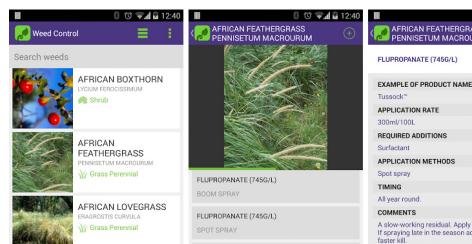


Figure 1: SA Weed Control App page, Play Store

The free weed control app provides essential information about the control of weeds declared in South Australia under the Natural Resources Management Act 2004. It is a particularly good resource for contractors or people working in large scale weed control.

The weed control app includes:

- control recommendations for over 100 declared plant species
- chemical and non-chemical treatments
- information on the safe use of herbicides
- colour photographs of each species for identification.

The weed control app provides information from the Weed Control Handbook for Declared Plants in South Australia. In addition app users can:

- record the location of weeds
- keep a personal log of control activities
- phone or email regional Natural Resource officers
- send photos and text of high risk weeds.

The app will be updated annually as chemical uses and plant declarations change.

The SA Weed Control app is produced by Biosecurity SA in partnership with the eight Natural Resource Management regions and is available from Google Play (for Andriod devices) or iTunes App Store (for Apple devices) or at [http://www.pir.sa.gov.au/biosecurity/weeds\\_and\\_pest\\_animals/plant\\_pests\\_in\\_south\\_australia/south\\_australian\\_weed\\_control\\_app2](http://www.pir.sa.gov.au/biosecurity/weeds_and_pest_animals/plant_pests_in_south_australia/south_australian_weed_control_app2).

# A Weeders Lament

by Barbara Bansemer, WMSSA Member

In 2008 we bought our 41ha property in Rockleigh and set to work on the worst weeds (ignoring the rampant salvation jane (*Echium plantagineum*) and wild oats (*Avena* spp.). At that stage there were scabious (*Scabiosa atropurpurea*) along the roadside, false caper (*Euphorbia terracina*) rapidly heading to our boundary and assorted thistles (*Onopordum acanthium*) and galenia (*Galenia secunda*) in the creek line. Each April/May we had to hunt out and spray bridal creeper (*Asparagus asparagoides*), each October/November monadenia (*Disa bracteata*). All was going moderately well using hand-pulling, spraying or cut & swab techniques with glyphosate. Bridal creeper, scabious, false caper and galenia were starting to look conquerable.



Photo credit: Barbara Bansemer

Figure 1: Galenia everywhere after the fire.



Photo credit: Barbara Bansemer

Figure 2: Barbara's husband in a sea of weedy saltbush.



Photo credit: Barbara Bansemer

Figure 3: Before pulling 31 wild aster.

Then on 14th January 2014 everything changed. Lightning scored a direct hit and fire swept everywhere. The 6,500 local provenance seedlings we had planted over five winters, and 8ha of direct seeding were burnt to a crisp. In our naivety we hoped that maybe the wild oats and cape weed (*Arctotheca calendula*) seeds had succumbed. We anticipated prolific growth of wattles (*Acacia* sp.) which need heat to activate germination. We were dreaming.

In September the land was a spectacular panorama of purple salvation jane and yellow cape weed, with oat grass as prolific as before the fire. As for the wattles, the seedling score so far is about fifty, from thousands of burnt bushes. In the creek bed the weeds had a blank palette to work on. Tens of thousands of galenia seedlings sprouted. Aided by 125mm of rain in February, weedy saltbush (*Atriplex prostrata*) germinated along the entire 400m creekline and thistles of various species came up by the thousand.

We organized a working bee and twelve pairs of willing hands removed all of the weedy saltbush, for the time being anyway, while galenia and thistles continued to flourish. Through winter and spring we continued to pull out the saltbush, a job made progressively harder as the rushes regrew. Thankfully thistles are easier to spot. Bright green, they poke out above the rushes and shout "We are here!" Pity about the nasty prickles! We chop the flower heads off before cutting the plants into short sections.

Just when we thought we were winning (silly us), by the middle of November a new enemy had appeared. Before the fire several large flowering wild aster (*Aster subulatus*) plants had been removed, but unfortunately the fire failed to destroy their seeds. Now by late January we have pulled out thousands of seedlings hiding in newly-grown rushes, risking eyes poked out by sharp tips of sea rush (*Juncus kraussii*), and collecting many spikes in the backs of our hands. Every visit, we find hundreds more.

Salvation jane, far too hard! Friends up the road have been assiduously removing it for 22 years, and every time there is a deluge of rain, thousands more seedlings appear. We'll keep plugging away, but sometimes we think "isn't it time to give up and take a long cruise?!"



# Internet Weed Incursions

Pearson, H. & Hill, R. 2014, “*Risks for New Zealand’s Biosecurity from Internet Trading of Plants*”, Ministry for Primary Industries New Zealand, 19th Australasian Weeds Conference

Cox, A. 2014, “*Online Seed Traders Put to the Test*”, Invasive Species Council, Online: <http://invasives.org.au/blog/online-seed-traders-put-test/>

Weeds ordered over the internet are a growing international biosecurity risk, and in New Zealand (NZ) they are increasingly detecting post-border incursions. Traffic volume is expanding, and plants are arriving faster than ever before. New plants in NZ need a risk assessment clearance under the Hazardous Substances and New Organisms Act 1996 prior to importation, with plants already in NZ subject to relevant Import Health Standards. The countries of origin are also required to certify that material conforms to NZ import requirements, and are free of visually-detectable regulated pests. NZ biosecurity authorities have a non-statutory “National Pest Plant Accord” (NPPA) with the Nursery and Garden Industry, and NPPA-listed plants cannot be sold, propagated or distributed in the country. Purchases over the internet by-pass this accord increasing the risk of naturalisation of both plants and their associated pests (Pearson & Hill 2014). Across the ditch, in Australia, it is a similar story.



Photo credit: David Cooke, PIRSA  
Figure 1: Mexican feathergrass (*Nasella tenuissima*)

The Invasive Species Council of Australia recently tested how easy it is to buy prohibited weeds online, and found quarantine seriously wanting. Purchasing mexican feathergrass (*Nasella tenuissima*) seeds over eBay was relatively quick and simple, and proceeded with no warnings about the potential risk of bringing prohibited seeds into Australia. Within about a week the seeds arrived. One hundred seeds of mexican feathergrass were received in the mail from New York and one hundred thousand seeds from Hong Kong (Cox 2014).

In NZ in 2013, 4.1 per cent of all post-border investigations were internet purchases, mostly seeds. NZ quarantine selects international mail for inspection using intelligence, x-ray image analysis and detector dogs. Over the last five years mail arrivals have dropped by 18 per cent, but the express freight incursion pathway has increased by 9.5 per cent. Consignment declarations are sometimes deliberately misleading to avoid inspection, and some domain names sound local (e.g. flowerseeds.co.nz) but ship directly from overseas (Pearson & Hill 2014). The Australian example shows this to be true. One of the mexican feathergrass packages received by the Invasive Species Council listed the contents as “Gift: Plastic beads 1 pack” (Cox 2014).

Complaints to internet suppliers, particularly eBay, are very difficult. There is often no obvious way to reach the seller if there is a problem and the complaint links are often ineffective. When the ACT Government complained to internet suppliers over a number of months, their complaints were ignored. Not long after their complaints, in 2009, Bunnings and Big W were caught selling hundreds of mexican feathergrass plants. A national recall was issued and the companies were fined. Sometime later the ACT government found ten mexican feathergrass plants growing on a Canberra property with the windblown seeds piled over a metre high and half a metre thick against a house door. 10cm of topsoil had to be removed as part of the eradication effort and five years later, seedlings are still being removed during annual checks (Cox 2014).

# Internet Weed Incursions (cont.)

Illegal internet sales are recognised as a growing biosecurity threat (Cox 2014). Education of both e-commerce traders and buyers is needed to reduce this threat (Pearson & Hill 2014). Internet trading platforms such as eBay should prevent traders from selling prohibited species and improve their complaint mechanisms (Cox 2014). The Ministry of Primary Industries (MPI) NZ has developed good cooperation from NZ's largest on-line trading site, "Trade Me", in removing illegal listings, but systematic monitoring of sites is also required, along with effective self-regulation of on-line sites (Pearson & Hill 2014). In Australia, when it was revealed to the biosecurity inquiry the ease of online purchases of prohibited seeds, the jaws of the senators dropped. The NSW rural newspaper "The Land" ran a front-page story in November 2014 about The Invasive Species Councils online seed ordering experience and officials started to take notice (Cox 2014).



Figure 2: Snapshot of "Trade Me", a NZ website now removing illegal listings

Since then, the Department of Agriculture has requested eBay to stop Australia being a destination for particular traders and eBay have improved their procedures. The Department of Agriculture have also tried to contact sellers using other platforms, not entirely with success. The Australian Government Department of Agriculture needs to determine the nature and extent of online illegal sales and to develop a compliance strategy (Cox 2014). In 2012, the International Plant Protection Convention (IPPC) advocated an international response and NZ is currently collaborating with the USA, with interest also from Canadian and South African biosecurity authorities (Pearson & Hill 2014).

The community can play a valuable role in preventing online weed incursions by reporting suspected illegal sellers to biosecurity authorities and complaining to website trading sites. To facilitate this work the Invasive Species Council has set up Border Patrol Eyes Online, an online spotters network to help close down trade in dangerous new weeds and animals. All you have to do is sign up as a 'Border Patrol Officer' and undertake to regularly monitor online sales of particular prohibited species. Get involved at: <http://invasives.org.au/project/border-patrol-need-eyes-online/> (Invasive Species Council 2014).

Note: the seeds purchased by the Invasive Species Council have since been safely destroyed to ensure they no longer pose a risk, and authorities have been notified (Cox 2014).

# Herbicide Plant Damage - Photo Repository

**Dr. Kassim Al-Khatib, Weed Science Professor, University of California, Davis**

Identifying nontarget crop and ornamental plant damage from herbicides has become much easier, with the launch of a new online photo repository by the Statewide IPM Program, University of California Division of Agriculture and Natural Resources.

Dr. Kassim Al-Khatib, weed science professor at UC Davis and director of the UC Statewide Integrated Pest Management Program (UC IPM), has gathered nearly a thousand photos of herbicide-damaged plants, drawn from his own and others' research. The images are cataloged to show damage that can occur from 81 herbicides in more than 14 specific herbicide modes of action, applied in field to demonstrate the symptoms or when known herbicide spray has drifted onto the plant. Each image is characterized with the

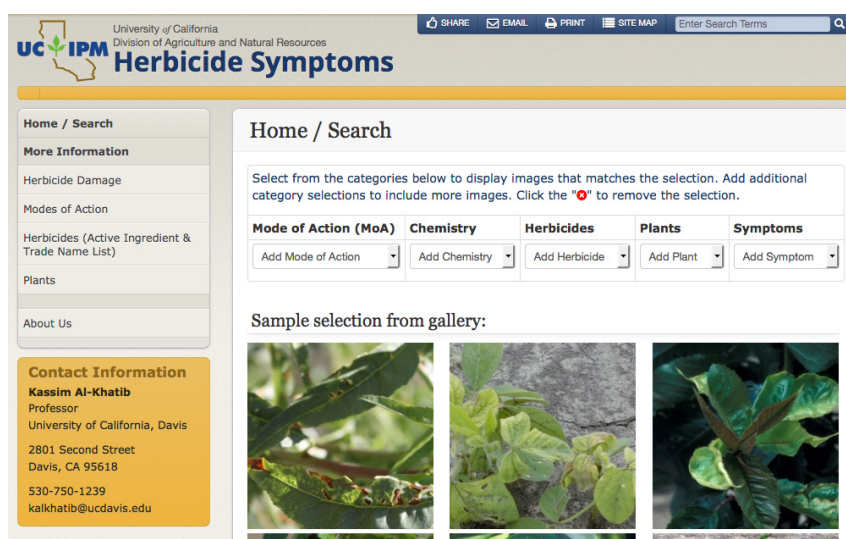


Figure 1: Snapshot from the Herbicide Repository.

name of the plant, mode of action of the herbicide, and notes the specific symptoms of damage. Together these photos provide a comprehensive archive of damage to over 120 different crops and ornamental plants by known herbicides, which users can easily compare with what they see in the field.

Also included in the repository is information about the modes of action of various herbicides and an index of example herbicide trade names and active ingredients. The repository can be found at <http://herbicidesymptoms.ipm.ucanr.edu/>

## ChemFree Weed Control Workshop



Date: 10th of July 2015

Time: 9am to 5pm

Venue: University of Adelaide - Waite Campus

Cost: TBA

The Weed's Network (TWN) are hosting a one day workshop on Chemical Free Weed & Vegetation Management. Learn about proven approaches to weed management without chemical input.

Gain insight into current public perceptions of herbicide pollution and health issues. Also, participate in peer discussion to share your opinions and ideas with other participants. For more information and to book into this workshop please go to: <http://weedsnetwork.com/rs/::workshops%20newspage>



### Weed Management Society of South Australia Membership

The Weed Management Society of South Australia Inc. was formed on 15th October 1999, bringing together people actively involved in managing weeds and researchers with interests in protecting our agricultural and natural environment. The Society is a forum to share knowledge, debate issues and generate ideas, drawing on practical weed control experience and the latest research.

New members are always welcome, or simply come along as a visitor to public meetings. The Society's newsletter *WeedWise* is distributed by mail to all financial members.

#### Weed Management Society of South Australia Inc. Membership Form

Please complete form, tick relevant boxes, fill in your contact details and send to the address below (Note: GST is not charged by the Society)

I want to become a member of the Weed Management Society of South Australia.

- ☐ I enclose a cheque for \$ \_\_\_\_\_  
Annual Membership with Plant Protection Quaterly Subscription:  
\$90 standard, \$75 Concession/Student  
Annual Membership only:  
\$30 standard, \$15 Concession/Student, free for community groups  
(payable to Weed Management Society of South Australia)
- ☐ I have made electronic payment of \$ \_\_\_\_\_ to the WMSSA Account -  
please ensure payment is clearly identified.  
Account Name: Weed Management Society of SA  
Institution: Peoples Choice Credit Union  
BSB: 805-050  
Number: 2378 7221

Name: Mr/Mrs/Miss/Ms/Dr \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Work:

Mobile:

Facsimile Work:

Home:

Email: \_\_\_\_\_

Forward with payment to:

Secretary, WMSSA - c/- Henry Rutherford  
PO Box 517 Torrens Park, SA 5062

### Upcoming Events

18th Australian Rangelands  
Conference  
"Innovation in the Rangelands"  
12-16th April 2015, Alice Springs,  
Northern Territory  
[http://arsconference.com.au/  
general-info/](http://arsconference.com.au/general-info/)

The Weeds Network "Chemical  
Free Weed Control" Workshop  
10th July 2015  
University of Adelaide - Waite  
Campus  
[http://weedsnetwork.com/  
rs/workshops%20newspage](http://weedsnetwork.com/rs/workshops%20newspage)

The 25th APWSS Conference  
"Weed Science for Sustainable  
Agriculture, Environment and  
Biodiversity"  
13-16th October 2015,  
Hyderabad, India.  
<http://117.240.114.67/apwss/>

18th New South Wales Biennial  
Weeds Conference  
"Weeds - The Future: Innovation  
& Adaptation"  
12-15th October 2015, Cooma,  
New South Wales  
[http://nswweedsoc.org.au/  
conferences/2015\\_conference/](http://nswweedsoc.org.au/conferences/2015_conference/)

7th International Weed Science  
Congress  
19-25th June 2016, Prague,  
Czech Republic  
<http://www.iwsc2016.org/>

20th Australasian Weeds  
Conference  
September 2016, Perth, Western  
Australia  
<http://www.wswa.org.au/20awc>

[www.wmssa.org.au](http://www.wmssa.org.au)

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