



# Weedscene

Volume 15 Issue 1

Newsletter of the Weed Society of Victoria Inc.

January 2004

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## What is New in the Cropping World?

*Seminar organized by the Weed Society of Victoria*

**Friday 20 February 2004 commencing at 8.55 am, registration from 8 am**

Yellow Gum Room, Department of Primary Industries,

Grains Innovation Park, Natimuk Road, Horsham

Changes are always occurring in any weed situation as knowledge and technologies develop. Cropping systems are no different. Legislation is no different, governments are always changing this.

What are the legal obligations of any farmer and what is the latest legislation for the user. What are the latest development in formulation technology, the latest developments in application techniques and nozzles that affect a better crop outcome. If you want to diversify into the latest in crops what are the problems of regulation for GM canola that mean that you can actually grow these crops, from Government and the ethical point of view and what is the current situation; and if these crops are grown what are the problems with breeding something like GM canola, and what happens after the breeding of a GM crop, is there a market for farmers and what happens if there is gene flow from GM to organic crops, legal implications for whom with what?

And what of the weeds themselves, how you control them in crops like pulses and in Mediterranean dryland cropping systems, how does integrated weed management work on farms.

Come to this seminar and find out the answers to such questions.

**FEES** (including lunch, teas and proceedings):

WSV members \$65.00

Non-WSV members \$80.00

Payment after 15/1/2004, add \$20.00

**GET IN EARLY, REGISTRATION CLOSES FRIDAY 13 FEBRUARY 2004**

For more information contact the Secretary, Weed Society of Victoria, PO Box 987 Frankston 3199, Phone/Fax 03 9576 2949, email [secwssv@surf.net.au](mailto:secwssv@surf.net.au).

### PROGRAM

08.00–08.55 Registration.

08.55–09.00 Welcome and housekeeping.

Richard Denver, President WSV

09.00–09.30 **Avoiding the penalties from spray drift with a practical look at glyphosate.**

Les Toohey, Regional Chemical Standards Officer, Hamilton

09.30–10.00 **New application techniques and nozzles.**

Peter Alexander, Tee Jet, Geelong

**10.00–10.30 MORNING TEA**

10.30–11.00 **Interaction of nozzles and spray fluids with particular reference to drift.**

Harry Combella, SpraySmart, Bendigo

11.00–11.30 **Trends in herbicide formulation development.**

Anthony Flynn, EUREKA!  
AgResearch Pty Ltd, Werribee

11.30–12.00 **The problems with breeding GM crops.**

Kylie Calderwood, Monsanto

12.00–12.30 **Problems with regulation of GM canola.**

Kay Khoo, Bayer CropScience

12.30–13.00 **Farm demonstrations for integrated weed management.**

Michael Moerkerk, Department of Primary Industries, Horsham

**13.00–15.00 LUNCH, WSV AGM**

15.00–15.30 **The ecology of Heliotrope in a Mediterranean dryland cropping system.**

James Hunt, The University of Melbourne, Burnley College

15.30–16.00 **Managing weeds in pulses.**

Katherine Hollaway, Department of Primary Industries, Horsham

16.00–16.20 **DrumMUSTER, the future.**

Don Matthews, Chemicare Consulting, Melbourne

## 38th Annual General Meeting of the WSV

**Friday 20 February 2004 13.00–15.00**

Yellow Gum Room, DPI, Grains Innovation Park, Natimuk Road, Horsham

This meeting will be held over the lunch break of the seminar above. This year's AGM will review the performance of the Society over the last year. It is up to you to participate in this meeting if you wish to influence the future of this Society. Use the proxy form on page 2 if you wish to participate in the AGM but cannot attend.

If you wish to have even more impact on the directions of the Society then nominate for a position on the committee. All positions fall vacant at this year's AGM. New committee members bring new ideas to the committee and help to keep the Society focused on new and emerging issues in weed management. So, if you are passionate about weeds and their effect on our environment, come and have your say.

If you are attending either of these events please contact the Secretary, Weed Society of Victoria Inc., PO Box 987, Frankston, Victoria 3199, Phone/Fax 03 9576 2949, Email: [secwssv@surf.net.au](mailto:secwssv@surf.net.au).

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## Big Book Wins Big Prize for Big Man of Weeds in WA

A great night last night for Kim Carter and Rod Randall being winners of the two Individual StateWest Achievement Awards. As reported in today's Business News the StateWest Achievement awards recognise the best of WA's Public Servants, across Federal, State and local government.

'The Department of Agriculture has made a clean sweep of the two individual categories in the 2003 StateWest Achievement Awards', said Business News with the headline 'Agriculture duo sweeps awards' individual gongs'.

Kim, for the very successful Nookenhah project and Rod for his internationally acclaimed 'A Global Compendium of Weeds' were the stars of the night. They demonstrated their incredible commitment and passion for their work areas in public interviews conducted by Tina Altieri immediately after receiving their awards. A fantastic effort by two outstanding contributors. Both have really made a difference to their work areas and to WA. Congratulations!

MEMBERSHIP RATES

### Weed Society of Victoria Inc.



<b>Students</b>	<b>\$20.00</b>
<b>Ordinary</b>	<b>\$40.00</b>
<b>Corporate</b>	<b>\$100.00</b>

## NSW Weed Society Seminar

Weeds – Woe To Go II

*New operating environments for weed control*

**Wednesday 17 March 2004, Hurstville**

Many recent changes in legislation will affect anyone involved in weed control. It is vital to keep abreast of these changes and the impact that they have on weed management programs.

In response to these changes, the Weed Society of NSW Inc. is running a seminar looking at the legislation and management issues in weed control. Speakers from Workcover, EPA and the APVMA (formerly National Registration Authority) will discuss current legislation and the changes and how they impact on weed control managers. This will be reinforced through a series of case studies from bushland, nursery, turf and local council weed managers.

In addition, John Broster from Charles Sturt University will address a

key topic of weed resistance development, with particular reference to glyphosate – where is resistance developing and why? Can we predict what would we do if glyphosate and or other key herbicides problems didn't work any more? How can we prevent that from happening?

A seminar not to be missed by anyone involved in weed control.

Date: Wednesday 17 March 2004, 8.30 am–4 pm. Location: Hurstville Entertainment Centre, McMahon Street, Hurstville

For further information or to register, contact: Louise Brodie Ph: 02 9585 6671 [louise.brodie@npws.nsw.gov.au](mailto:louise.brodie@npws.nsw.gov.au), Mike Barrett Ph: 02 9875 3087 [mikebarrhort@iprimus.com.au](mailto:mikebarrhort@iprimus.com.au). Or visit the Weed Society website <http://www.nswweedsoc.org.au>

## Weed Management Society of SA Workshop

*South Australian Perennial Grass Weeds*

**Friday 27 February 2004, Waite Institute, Adelaide**

The Weed Management Society of South Australia Inc. is convening a one day workshop titled 'South Australian Perennial Grass Weeds'. The workshop has three key objectives:

- 1) Raise awareness of key stakeholder groups on the threats posed by perennial grass weeds.
- 2) Provide information on the impacts (including benefits/uses) and management of perennial grass weeds in SA.
- 3) Develop a process for the strategic

management of perennial grass weeds in South Australia.

A range of national and state speakers will cover such grasses as the Nassellas, Coolatai grass, buffel grass and tall wheatgrass. Book early as places are limited.

Location: Plant Research Centre Auditorium, Waite Institute, Adelaide.

If you would like a registration brochure or more information, please contact John Virtue (08 8303 9502, email [virtue.john@saugov.sa.gov.au](mailto:virtue.john@saugov.sa.gov.au))

**WSV HOME PAGE: <http://www.vicnet.net.au/~weedsoc/>**

### PROXY FORM

I, (a).....appoint

(b).....

as my proxy to represent me at the AGM on 20/2/04 and vote on any motion as he/she sees fit.

Signed .....Date..... / ..... / .....

(a) Name of financial member wishing to vote (votes from non-financial members will be excluded).

(b) Insert name of member attending meeting to whom proxy is delegated.

### NOMINATION FORM

*WSV Committee Positions*

I nominate .....

Company/Position .....

For the position of .....

Signed .....

Seconded ..... Date..... / ..... / .....

**NOMINATIONS CAN ONLY BE MADE BY  
FINANCIAL MEMBERS**

Return to: PO Box 987, Frankston 3199 by 13/2/04

# The University of Melbourne Department of Forestry 3rd Workshop/Seminar Plantation Pest Control Wednesday and Thursday 3–4 March 2004, Creswick

This workshop is to be conducted by the University of Melbourne Department of Forestry in association with Macspred Pty Ltd and is convened by Dr Barry Tomkins. It will include presentations by leading research and field practitioners and field inspections of two trials on Thursday afternoon.

Key speaker: Braden Jenkin. Speakers include: Don McGuire, ForestrySA, Adelaide Hills; Ray Fremlin, Forest Products Commission WA; Mal Ferguson, Macspred, Queensland; Barry Tomkins, University of Melbourne, Creswick; Peter Alexander, TeeJet, Geelong; Dr David Boersma, Seed Energy, Mt Gambier; Nick

Collett, Forest Science Centre, Heidelberg; Chris Barnes, Gunns, Tasmania; Peter Mackay, Field Air, Ballarat; Gavin Hall, APVMA, and representatives of agricultural chemical companies.

Location: School of Forestry, Creswick, Forestry Science Centre, Stage 2 Lecture Theatre, commencing at 9.00 am.

## Cape Pond Lily (*Aponogaton distachyos*) South African Food Plant – Emerging Aquatic Weed in Victoria

*Aponogaton distachyos* (Cape pond lily, Cape pond weed or water hawthorn) is native to southern South Africa. This plant grows in slow flowing freshwater creeks, lakes, rivers and garden ponds. Cape pond lily is a herbaceous perennial plant, which roots in the hydro soil in waters usually one to two metres deep.

The oval shaped leaves, 30 cm long and 8.5 cm wide, float on the water surface. The attractive part of this plant is beautiful pinkish or white flowers arranged fairly closely on one side of each branch of the forked inflorescence. Flowers stand up out of the water above the leaves, attracting attention. The waxy white blooms are forked at the base and studded with purple anthers that are very sweetly scented. The plant flowers and fruits from September to May.

Recent observations found that this invasive species has naturalized in several locations in Victoria. There is an outbreak of Cape pond lily located at Jackson's Creek in the middle of Osborne Township in Victoria (about 25 km from Melbourne Airport). The infestation shows the ability of this plant to invade in a cooler climate. Because of its attractiveness and ease of cultivation in cooler climates, Cape pond lily has been

introduced for use in outdoor aquaria. In addition to intentional plantings, it has escaped cultivation and spread via seeds and tubers. It has the ability to change the physical and chemical characteristics of lakes and streams. Infestations can alter aquatic ecosystems by shading out the native flora. In addition, Cape pond lily can block waterways, irrigation pumps and water metering equipment. Thick infestations interfere with the use of lakes and rivers for recreation, and provide an ideal breeding ground for mosquitoes.

Previously this plant has not been considered a weed in Victoria, and has been cultivated as an aquarium plant in temperate water gardens for several years. It is readily available through the aquarium industry. It has also escaped from gardens and naturalized in New Zealand, France, Peru, Argentina and England.

There are nine native species within the Aponogetonaceae family present in Australia. *Aponogaton distachyos* is one of the few winter growing and flowering exotic species. The flowers of native species are yellowish and arranged right around the axis making them easily distinguishable from the exotic species.

After insects pollinate flowers, Cape pond lily develops groups of small green

fruits. Ripe fruits become detached and float for a short time before releasing the seeds, which then settle. The seeds germinate freely on the water surface.

The inflorescence has been a traditional wild-gathered vegetable in South Africa. The cultivation of this plant as a food crop has increased during the last twenty years in South Africa.

Dr. Lalith Gunasekera, Tel (03) 9785 0137, [lalith.gunasekera@dpi.vic.gov.au](mailto:lalith.gunasekera@dpi.vic.gov.au)

## Christmas Trees

Just thought I'd pass on a positive weed story from southwest Victoria. For the past two years, a local community, and more recently a local school, are benefiting from the removal of young *Pinus radiata* trees from a reserve which are subsequently being sold as Christmas trees. The site was previously a pine plantation and therefore has no shortage of regenerating pines. In addition to the environmental benefits, last year nearly \$2000 was raised to support local community facilities. This year the price per tree has been raised due to a shortage of Christmas trees in the area, so both environmental and social/economic benefits are predicted to be even greater.

**Cheers, Jenny Emeny, Enviroweeds**

## EUREKA! AgResearch Pty. Ltd.



For further  
information about  
EUREKA!  
contact:

Anthony Flynn  
03 9742 0286

Philip Pentland  
03 9742 0302

Kieran Murphy  
04 9742 0289

A weed called Euphorbia (sea spurge)  
Is brought to our dunes by the surge.  
It has a long tap-  
Root and white latex sap.  
Please help us remove it, we urge.  
Neil, Enviroweeds



## Identifying Sleeper Weeds That Could Be Eradicated

A strategic approach to weed management should include eradication of emerging weed species, or 'sleeper weeds', before they become major problems, but where the only management options are containment or ongoing control – which species should and can be eradicated?

A Bureau of Rural Sciences (BRS) study has identified a number of potential 'sleeper weeds' that could potentially be eradicated before they become major agricultural weeds in Australia. An agricultural 'sleeper weed' was defined for this project as a naturalized exotic plant species that is currently only present in a small area but that has the potential to spread widely and have a major negative impact on agriculture.

There are around 3000 naturalized exotic plants in Australia. For most of these, there is little knowledge of where they are and whether they can or should be eradicated. Since analysis of 3000 species in detail would be too expensive, a shortlist approach was used to focus on the most likely candidates for eradication. A preliminary short list of 144 potential sleeper weeds was identified on the basis of previous work. Then consultation with the States and Territories reduced this list to 17 species for analysis.

These 17 plants are naturalized and have been in Australia for anywhere between 5 and 100 years, but because of their weed risk, none of them would be permitted for import today. For each of the 17 species, the area of Australia where there was a potentially suitable climatic environment was assessed using the potential distribution model 'Climate'. The revenue of agricultural production at risk was calculated, based on the land uses that each weed could impact on within its potential distribution; this provided a relative measure of the potential benefits of eradication. The method could also be applied to environmental or urban weeds by using different layers of spatial information.

To assess the feasibility of eradication of the 17 species, a system was developed to quantify the relative amount of effort required to eradicate a weed based on a number of variables describing its current distribution and biological attributes. The system was calibrated against estimated costs for eradication of a range of different weeds. The most significant factors influencing the cost of eradication were found to be area and number of infestations, ease of access and propagule longevity. This system provides a relative, but not precise, measure of eradication cost, or feasibility of eradication. Of the 17 short-listed candidates, the 10 species with the highest relative benefit-cost ratio were recommended for further eradication efforts, these are: *Baccharis pingraea* (Vic); *Eleocharis parodii* (NSW); *Piptochaetium montevidense* (Vic); *Centaurea eriophora* (SA); *Crupina vulgaris* (SA); *Asystasia gangetica* ssp. *micrantha* (NSW); *Onopordum tauricum* (Vic); *Oenanthae pimpinelloides* (SA); *Rorippa sylvestris* (Tas, SA); *Nassella charruana* (Vic).

For an eradication campaign to be successful, a time-limited plan supported by detailed benefit-cost analysis and a commitment of resources for the term of the eradication are required. This period may exceed 10 or 20 years where a persistent seed bank is present. Since fieldwork was beyond the scope of this study, the location and area of weed infestations were based on estimates by experts in the States where the weeds occur. In the next phase of this project, the Weeds CRC is managing field surveys of the 10 highest priority weeds in order to collect reliable data on their geographic distribution. This information will be used to validate the model of eradication feasibility and to support the development of detailed eradication plans where the results confirm that eradication is feasible.

**David Cunningham (BRS)**

A technical report on prioritizing sleeper weeds for eradications is available from [www.affa.gov.au/brsweeds](http://www.affa.gov.au/brsweeds)

## Roadside canola – a persistent problem?

Will herbicide-resistant varieties of canola become uncontrollable weeds? Can researchers predict the answer?

One way of answering the question may be to determine if existing volunteer (weedy) canola populations are the result of repeated spills or if they result from a build up of a seed bank created *in situ*. The answer could impact on management strategies put in place for controlling roadside populations.

The aim of this study was to try and determine the answer to the questions outlined above. Leaf and/or seed material was collected from roadside canola populations in Victoria and South Australia. DNA was extracted and 'fingerprinting' of the varieties was undertaken via molecular methods. The results from collections made in 2002 indicated that larger populations were more likely to have several fingerprints whereas smaller populations were more likely to contain a single fingerprint. When we compared maternal (leaf or pod) DNA with the offspring (seed) the fingerprints were always identical. This suggests that outcrossing is rare in roadside canola populations, even when more than one variety is present in the population.

This finding supports published research showing that canola plants have a high level of self pollination and restricted paternity shadows, that is, they pollinate with their immediate neighbours.

The conclusions would suggest that the spread of herbicide tolerant genes between canola plants would be slow and provide plenty of opportunities for control to be undertaken. More importantly, the flowers of canola are highly visible making the public very aware of their presence and this provides a means whereby they can be easily targeted for eradication if that outcome is desired.

**Dr Jeanine Baker, Tel (08) 8303 7298**  
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