



# Weedscene

Volume 16 Issue 6

Newsletter of the Weed Society of Victoria Inc.

November 2005

ACN:A0011723W ABN: 15 496 325 152 Print Post Approved – Publication Number 310279/00029

## WSV Seminar *The interaction of weeds and animals* 9 March 2006

The Weed Society of Victoria will be holding a seminar entitled *The interaction of weeds and animals* on Thursday 9 March 2006 at the DPI/DSE Knoxfield Centre, Burwood Highway, Knoxfield, commencing at 9.00 am with registration opening at 8.00 am.

Cost: Students \$65.00; WSV members \$85.00; non-WSV members \$105.00. Please note – late fees apply after 31/1/06.

Weeds can be spread by animals, especially by birds such as cockatoos and ravens which have been recorded as spreading pine nuts and prairie ground cherry. Foxes are known to feed on blackberries and other soft fruits and later spread their seed.

Other animals encourage the spread of weeds. Rabbits' behaviour encourages the spread of stemless thistles and serrated tussock because they eat everything but these weeds; while horses and blackberry cause problems because they eat everything but the blackberry. Horses cause the spread of Paterson's curse as hay, containing Paterson's curse seed, is distributed far and wide during drought periods as fodder.

Weeds always grow near the sharp bends in roads along which domestic stock are transported; domestic stock also encourage shrub growth in grazing systems as they eat everything but the shrubs; cattle and horses create shrubland through a preference for grasses; goats create grassland by a preference for woody material.

Biological control of weeds is well known and has been used in Australia and overseas for some decades. This is a safe use of insects in an attempt to control introduced plants. But what impact will the introduction of a 'non-biological' control insect have on our weed systems? What does the introduction of the large earth bumble bee have on sleeper weeds?

## Victorian Weed Society Travel Grant

Weed Society of Victoria will provide funds for a Travel Grant to send two people to the Australian Weeds Conference. The Grant is to encourage members of the Society to attend the Australian Weeds Conferences, to increase their involvement in weed science and to promote the involvement of the Society in the conference. The recipients shall be current financial members of the Society and have been members for more than one year. The Grant will not be given to the same person more than once.

The Grant will cover the Registration Fee and the airfare to attend the Australian Weeds Conference, and will not exceed \$1500.00 per recipient. The grant will be made in accordance with guidelines to be published at the end of the year preceding the Conference, with applications to be in to the Society by the end of the March of the year in which the Conference is held. The recipients of the award will be notified within two months of the close of the applications and the information will also be placed in Weedscene, the Society's newsletter.

The submissions should be brief, include details of the applicant's weed related work, research or applied; any

involvement in the Society; presentation of paper or poster with title and page length summary; whether there is any other assistance to attend the Conference. The submission should also give reasons for travel, the benefits to the applicant and to the Society.

A panel of three qualified Weed Society of Victoria members, appointed by the executive, will judge the submissions. The judges will examine the application for relevance of the paper or poster to the topic of the Conference, the involvement of the applicant in a weed science related field, the relevance of the applicant attending the Conference, the presentation of the application, any involvement in Weed Society of Victoria Inc.

On returning from the conference the recipient will be expected to submit within two months a written report covering the highlights of the conference and the benefits gained. The report will be published in Weedscene.

For further information visit the Society website [www.wsvic.org.au](http://www.wsvic.org.au)

## Inside this issue...

WSV Seminar <i>Weeds and Animals</i>	1
Victorian Weed Society Travel Grant	1
Creation of a new working group on invasive plants in Europe	2
Veg Futures 2006: The conference in the field	2
The Swire Churchill Fellowship	2
Stubble Sowing Device a winner!	3
Second Victorian Weeds Conference Proceedings	3
15th Australian Weeds Conference	3
New Restoration Ecology Degree Course for Albany	3
Vineyard weeds found to host Pierce's Disease of grapes	4
WSV Directory	4

# Creation of a new working group on invasive plants in Europe

by Christian Bohren, Invasive Weeds Working Group Leader, European Weed Research Society

The problems generated by invasive plants worldwide concern environmental and agricultural weed scientists as well as the public. Considering the threat that invasive plants represent for the biodiversity in natural, semi-natural and aquatic habitats, they have been defined as "environmental weeds".

Several environmental weeds are also noxious agricultural weeds (e.g. *Ambrosia artemisiifolia*, *Senecio inaequidens*, *Vulpia myuros*, ...). Also numerous biological characteristics conferring weediness to plant species (e.g. breeding strategy, seed dispersal and longevity, growth rate, ...) are similar in both natural and agricultural areas. Last but not least, large areas devoted to agriculture, such as pastures, are in fact very near to natural habitats and are subject to invasive processes.

Therefore it seems obvious that exchange of knowledge and experience between environmental and agricultural weed scientists as well as other specialists would be of great benefit to all. For instance weed control methods developed in agriculture can be valuable in improving weed management in natural habitats. And, experiences on the phytosociology of invasive plants in nature can be beneficial for the development of weed control in agriculture.

SciCom decided to establish a new working group on invasive plants, including aquatic weeds. The mission of the new working group will include:

- Assisting communication and information exchange between agricultural and environmental researchers, between scientists and professionals, between individuals and organizations, between national and international organizations;
- Identifying key research and control technology needs and encouraging their execution, including collaborative programmes;
- Organizing meetings, symposia and conferences, and including the topic in existing meetings;
- Encouraging and assisting education and training on invasive plants (control, horticultural and environmental aspects) for institutions, students, professionals (road services) and general public.

Research topics to be covered by the new WG will be: agricultural weeds/environmental weeds; phytosociology of invaded places; human activities and invasive plants; prevention and management; non-chemical and chemical control methods in various environments.

We hope to gather a group with scientists and practitioners of many different professions like agricultural and biological researchers, environmentalists, conservationists, water specialists, road services, etc.

The activities of the WG on Invasive Plants will include potential interactions with already existing EWRS Working Groups on Biological Control of Weeds, Weeds and Biodiversity, Site-Specific Weed Management, Optimization of Herbicide Dose, Education and Training. They will also include close collaboration with already existing research/policy networks in Europe and elsewhere. The Invasive Plants Working Group will have its first meeting at RAC Changins Nyon, Switzerland on Monday, the 6th February 2006.

Anyone interested in this subject is invited to participate. Further information and a tentative agenda will soon be circulated. Anyone interested in Invasive Plants please contact the coordinator of the WG for further information on the future activities and for inclusion in the Working Group mailing list: Mr Christian Bohren, Swiss Federal Agricultural Research Station, RAC Changins, PO Box 1012, CH-1260 Nyon 1, Switzerland. Or email christian.bohren@rac.admin.ch.

## Veg Futures 2006: The conference in the field

19–23 March 2006 in Albury-Wodonga

Veg Futures 2006, is a national conference about the role of vegetation in productive landscapes: from policy to regional planning and into practice.

Veg Futures 2006 will provide an opportunity for anyone involved in vegetation management at the regional level to have their say, pass on their knowledge and experience to others, and pick up some new ideas.

This is a conference for tree planters, regional planners, environmental managers, policy makers, direct seeders, researchers, seed collectors, extension agents, botanists, teachers and trainers, bush regenerators and sustainable farmers and graziers.

Whatever type of native vegetation you are interested in, from grasslands to rainforests, from woodlands to rangelands, we want you to be part of this exciting conference.

Further information can be found at [www.greeningaustralia.org.au/](http://www.greeningaustralia.org.au/). Click on the Veg Futures 2006 logo.

Veg Futures 2006 is being convened by Greening Australia and Land & Water Australia in partnership with CSIRO, the Joint Venture Agroforestry Program, Charles Sturt University, the Australian Government Department of Agriculture, Fisheries and Forestry, and the Department of the Environment and Heritage.

Envirowire 19/09/05

## The Swire Churchill Fellowship

The Winston Churchill Memorial Trust celebrates its 40th Anniversary this year. The Trust confers nearly 100 Fellowships every year and 2006 will see the total number of Fellowships awarded increase to over 3000. Of particular interest for the 2006 round of Fellowships is the 'Swire Churchill Fellowship for the study of an aspect of the cotton industry, irrigation or broad acre weed control'.

No prescribed qualifications are required. Merit of the proposal is the primary test and a strong desire to share the results of the fellowship with the Australian community must be displayed.

Applications for the next round of Fellowships can be made from 1st November 2005 until the normal closing date of 28th February 2006.

Download information and application forms from the website at [www.churchilltrust.com.au](http://www.churchilltrust.com.au).



## Stubble Sowing Device a winner!

*(from the CRC for Weed Management)*

Featured on the ABC's New Inventors program on 7 September, the StubbleStar® technology was developed by researchers in the Cooperative Research Centre for Australian Weed Management in answer to the complex challenges of effective weed control, reduced chemical and fuel use, improved soil structure and higher yields.

The innovative no-till crop seeder/opener, developed at the NSW Dept of Primary Industries Wagga Wagga Agricultural Institute, is expected to be commercialized in the next six months.

Successfully demonstrated to NSW grain growers in 2004, the StubbleStar was launched nationwide this season when it went on trial at sites in the Western Australian wheat belt at Meckering and Merredin, says its developer, agricultural engineer David Gregor.

A cross between a trash-removing wheel and a conventional double disc, the StubbleStar consists of two 20-toothed star-shaped blades angled at eight degrees

to each other. Nitrogen fertilizer is deposited into the imprints left by the star teeth. These are then filled, and seed and starter fertilizer go into this loosened soil. 'We place most of the fertilizer right where the seed can get to it -and we avoid feeding the weeds,' Mr Gregor explains. 'We're getting the same emergence results as the best tined machines and slicing through stubble without a care.'

Depending on the crop being grown, the StubbleStar also makes a dramatic reduction in herbicide use possible. It checks weeds in four ways: -by disturbing the soil less, so that fewer weed seeds germinate, -by maintaining a heavy blanket of straw on the surface, -by narrow row spacing, so the crop beats the weeds to moisture and light and by fertilizing the crop, not the weeds.

Environmental benefits of the StubbleStar include reduced air pollution, as farmers can retain heavy stubble on their land instead of burning it, reduced soil erosion, reduced greenhouse emissions

from soil tillage, and reduced chemical and energy use. 'Our trials so far show superior straw handling ability and minimal soil disturbance,' Mr Gregor says. 'The farmers who have seen it are very enthusiastic, especially about the way it fertilizes the crop and avoids build-up of straw on the machine itself. We trialled it on red soils with a range of crops - barley, wheat, lupins and canola - with generally good results. Where the crop is highly competitive, like barley, you can just about do away with the need to use herbicides.'

Now patent protected, StubbleStar has potentially huge commercial applications around the world. 'We believe it will work equally well in all no-till crops,' Mr Gregor says. 'All farmers face the same challenges of how to increase yields, reduce their reliance on chemical inputs, protect their soils and keep on top of the weeds.'

More information: David Gregor, Weeds CRC, NSW Department of Primary Industries, Tel 02 6938 1907.

## Second Victorian Weeds Conference Proceedings

Proceedings from the Second Victorian Weeds Conference are available for sale from the Secretary WSV. Price \$25 each including postage. If you missed this event and wish to purchase a copy of the proceedings contact The Secretary Ros Shepherd, Telephone/Fax (03) 9576 2949 or email [secwssv@surf.net.au](mailto:secwssv@surf.net.au).

## New Restoration Ecology Degree Course for Albany

A new degree course in restoration ecology being offered by The University of Western Australia at its Albany Centre will make effective use of local land and waterway restoration initiatives as part of its field-work component. The course is only being offered in Albany and has just opened for enrolments.

Albany provides an ideal location for the course because UWA, through its local research centres, has established strong networks with environmental scientists from government agencies such as the Departments of Agriculture, Environment, and Conservation and Land Management.

"We have drawn on the experience and expertise of practitioners in natural resource management in designing the course content, and one of the strengths of the degree is that it will adopt an integrated approach," says Dr Cook, course coordinator and a Research Fellow at the Centre of Excellence in Natural Resource Management.

Those interested in knowing more about the course should access <http://www.albany.uwa.edu.au> or phone the Albany Centre on 08 9842 0888 or UWA Admissions on 1800 653 050.

*Enviroinfo 16/9/05*

## 15th Australian Weeds Conference

The next conference has the theme 'Managing weeds in a changing climate' and will be held in Adelaide from 24-28 September 2006. For more information see the enclosed leaflet or visit the conference website at [www.plevin.com.au/15AWC2006](http://www.plevin.com.au/15AWC2006).

Need funding to attend the conference? See the article in this issue about funding available from the Weed Society of Victoria or check out the Council of Australian Weeds Societies website ([www.vicnet.net.au/~weedss](http://www.vicnet.net.au/~weedss)) for more travel awards.

## EUREKA! AgResearch Pty. Ltd.



For further information about EUREKA! contact:

Anthony Flynn  
03 9742 0286

Philip Pentland  
03 9742 0302

Kieran Murphy  
03 9742 0289



## Vineyard weeds found to host Pierce's Disease of grapes

New research just released suggests that weeds commonly found in California's wine country may enable the spread of Pierce's Disease of grapes, one of the most destructive plant diseases affecting grapes.

Pierce's Disease is caused by *Xylella fastidiosa*, a bacterium transmitted by sharpshooters and spittlebugs. In response to outbreaks of Pierce's Disease in central California, plant pathologists studied 29 weed species commonly found in California's San Joaquin Valley to see if the bacterium could survive on the weeds. Perennials and known feeding and breeding hosts of the glassy-winged sharpshooter were tested first, then plants particularly abundant in or near vineyards.

'Our objectives were to determine the fate of Pierce's Disease infections in previously untested plant species associated with southern San Joaquin Valley vineyards, and compare survival of the infections in selected field and greenhouse-grown plants,' said Christina Wistrom, staff research associate in the Department of Environmental Science, Policy and Management, University of California, Berkeley, California.

The study revealed that environmental conditions have a major impact on bacterial growth in host plants. 'Multiplication and systemic movement of *X. fastidiosa* varied among different plant species and environmental conditions, so weed species in vineyards must be evaluated on an individual basis to determine their potential contribution to Pierce's Disease,' Wistrom said. 'Currently, Pierce's Disease is controlled by reducing populations of the insect vector, either through insecticide sprays or habitat modification to remove insect breeding host plants. Our

study reinforces the need for weed control in irrigation ditches and roadsides adjacent to vineyards, in regions with chronic Pierce's Disease and established populations of sharpshooters, especially in warm weather,' she said.

The researchers recovered *X. fastidiosa* from 27 of 29 species in greenhouse tests. Sunflower, cocklebur, annual bur-sage, morning glory, horseweed, sacred datura, poison hemlock, and fava bean were most frequently infected. 'Our study confirmed that plant species cannot be simply classified as either "hosts" or "nonhosts" of *X. fastidiosa*, but vary considerably among plant species in supporting growth and movement of the bacterium,' Wistrom said. In addition, she noted that the joint lab and field experiments showed that environmental conditions strongly influenced how rapidly the bacteria multiplied within the plants.

A full article is available in the September 2005 issue of Plant Disease. Published by The American Phytopathological Society (APS).

**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>



## Bayer CropScience

**WSV HOME PAGE** [www.wsvic.org.au](http://www.wsvic.org.au)

**Newsletter Sponsors:** Dow AgroSciences • Bayer CropScience  
EUREKA! AgResearch Pty. Ltd

## WSV DIRECTORY

### Correspondence and enquiries

Weed Society of Victoria Inc.  
PO Box 987  
Frankston Vic 3199  
Telephone (03) 9576 2949

### Secretary

Ros Shepherd  
PO Box 987  
Frankston Vic 3199  
Telephone/Fax (03) 9576 2949  
Email [secwsv@surf.net.au](mailto:secwsv@surf.net.au)

### Weedscene Editor

John Ashby  
BayerCropScience  
391-393 Tooronga Road  
East Hawthorn Vic 3123  
Telephone (03) 9248 6855  
Fax (03) 9248 6805  
[john.ashby@bayercropscience.com](mailto:john.ashby@bayercropscience.com)

### President

Daniel Joubert  
[Daniel.Joubert@dpi.vic.gov.au](mailto:Daniel.Joubert@dpi.vic.gov.au)

### Past President

Richard Denver  
[richard@weedmanager.net](mailto:richard@weedmanager.net)

### Vice President

David McLaren  
[david.mclaren@dpi.vic.gov.au](mailto:david.mclaren@dpi.vic.gov.au)

### Treasurer

Norm Stone  
[norm.stone@bayercropscience.com](mailto:norm.stone@bayercropscience.com)

### Committee Members

Ian Faithfull  
[Ian.Faithfull@dpi.vic.gov.au](mailto:Ian.Faithfull@dpi.vic.gov.au)  
  
Michael Hansford  
[Michael.Hansford@dpi.vic.gov.au](mailto:Michael.Hansford@dpi.vic.gov.au)  
  
Greg Wells  
[WELLS1@dow.com](mailto:WELLS1@dow.com)

### CAWS Rep

Kelly Raymond  
[KRaymond@parks.vic.gov.au](mailto:KRaymond@parks.vic.gov.au)

### Co-opted Members

Chris Knight  
[cknight@lmsonline.com.au](mailto:cknight@lmsonline.com.au)  
  
Kate McArthur  
[Kate.Mcarthur@dse.vic.gov.au](mailto:Kate.Mcarthur@dse.vic.gov.au)

### Country Members

Les Mitchell  
[agriserve@shepparton.net.au](mailto:agriserve@shepparton.net.au)  
  
Ron Davies  
Mobile 0419 308822