Volume 16 Issue 5

Weedscene

Newsletter of the Weed Society of Victoria Inc. September 2005

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

Kate Blood addressing the conference

Second Victorian Weeds Conference – another success

The Weed Society of Victoria presented its second weeds conference on the theme 'Smart weed control, managing for success' on the 17–18 August 2005 at the All Seasons International Hotel, Bendigo. The aim of this conference, and the planned series, was to provide weed managers in Victoria, who would not normally be able to attend the Australian Weeds Conference, with a venue where weed issues relevant to Victorian conditions can be discussed.

The two day conference was another success for the Society and has consolidated a series of conferences that are destined to become an important part of weed management in Victoria.

The All Seasons International Hotel provided a great venue and very helpful, supportive staff. ***Photos by John Ashby***

Past Presidents of the Society attending the conference
Left to right: Kelly Raymond, Chris Knight, Bob Richardson

Another Past President, Rosemary Henderson, enjoying the coffee break

Wiping out weeds carefully

An Australian firm has developed a direct contact herbicide applicator (often referred to as a weed 'wiper') with a unique twist: an electronically controlled hydrostat system that maintains the weed contact wiping surface at optimum wetness levels to ensure positive application to tall weeds rising above the crop canopy, but without herbicide drips. The firm's 'Weedswiper', said to be the only wiper with this feature, retains the correct saturation level of a contact herbicide regardless of travel speed or weed density. Absence of drips conserves herbicide and avoids unintentional killing of crops or pasture. The control device is linked to moisture sensors in the contact pad and operates with a single knob mounted in a convenient location for the operator of the tractor, all-terrain vehicle, or other unit on which the Weedswiper is mounted.

J. Maddock, Agtronix, PO Box 101, Kingston, Tasmania 7051. Web: http://tractornet.com/agtronix/index.htm.

From IPMNet News

Inside this issue…

On-line weed information sources

On-line sources of weed information are numerous and widely scattered, prompting one researcher to ask, which might be the 10 most useful sites, and another researcher to provide an intriguing answer, broadly excerpted as follows.

Invasive species specialist E.A. Sellers, in responding to the question, commented that defining a 'Top-10' site is difficult because every information search is different, depending on the target species and the region(s) where it's invasive or a native. A useful starting point, suggested Dr. Sellers, is a quick general search, followed by more specific searching and information from web-based species lists and fact sheets.

For broad general information about weeds, Sellers notes several sites (not necessarily in order of preference and predominantly in the US) including:

- The IUCN-ISSG's Global Invasive Species Database; http://www.issg.org/database/welcome/
- Weeds Australia; http://www.weeds.org.au/
- The US National Park Service's Weeds Gone Wild (Alien Plant Invaders of Natural Areas); http://www.nps.gov/plants/alien/
- The Center for Invasive Plant Management; http://www.weedcenter.org/
- The Center for Aquatic and Invasive Plants; http://aquat1.ifas.ufl.edu/welcome.html
- The INVADERS Plant Database; http://invader.dbs.umt.edu/
- The Center for Integrated Pest Management; http://cipm.ncsu.edu/
- The Invasive Plant Atlas of New England (IPANE); http://invasives.eeb.uconn.edu/ipane/
- International Databases; http://www.invasivespecies.gov/databases/intldb.shtml
- Terrestrial Plants Databases; http://www.invasivespecies.gov/databases/tpdb.shtml
- Aquatic Plants Databases; http://www.invasivespecies.gov/databases/apdb.shtml
- Global Invasive Species Information Network (GISIN): ttp://www.gisinetwork.org/Documents/DraftIASDBs.htm.

Note: Readers may wish to suggest their own favourite weed sites which Weedscene could mention in a future issue.

From IPMNet News

Myocarditis from the tree-of-Heaven (*Ailanthus altissima*)

Extracted from 'to the editor' in *Annals of Internal Medicine* Volume, 19 July 2005.

Background: Myocarditis is commonly assumed to be infectious in origin in many patients who present to the emergency department with chest pain, depressed ejection fraction, and a history compatible with a viral syndrome. Certain naturally occurring products, such as quassinoids in tree sap, may also cause myocarditis. The following describes a case of myocarditis likely due to exposure to sap from the Chinese sumac tree or tree-of-Heaven (*Ailanthus altissima*).

A previously robust, healthy 24-year-old man presented to the emergency department reporting three days of fever and chills associated with epigastric pain, substernal chest pressure that radiated to both arms, and shortness of breath. Up to the day of admission, he had been working as a tree surgeon on a team responsible for clearing heavy areas of Chinese sumac, also known as tree-of-Heaven.

The patient's pain intensified substantially over the next 48 hours, but then rapidly abated [and after treatment he was discharged]. On a return clinic visit, the patient reported that all of his co-workers had also been ill at the time of his hospitalization, many with gastrointestinal symptoms and some with chest pain. He expressed concern that they may not have exercised proper caution while clearing Chinese sumac, since, he said, 'the sap on that tree will make you sick'. One year later, the patient's cardiac function remains normal, he is taking no medications, and he has resumed his normal active lifestyle.

Review of the literature shows that the sap of the Chinese sumac may contain proteins, called quassinoids, that can explain our patient's cardiac findings, the illness of his co-workers, and the perceived need among arborists for caution while handling the Chinese sumac. The tree-of-heaven, as it is commonly known, is a tree of the sumac family that is native to China. Initially brought to the United States because of its ease of rapid growth and its medicinal implications, this tree has become very common in all areas of the country, particularly the north-eastern states. The bark of the tree-of-heaven has been used as an herbal remedy for dysentery and, more recently, for malaria. Among its many implications derived from folk medicine, *Ailanthus altissima* is thought to be a cardiac depressant and has been used to slow heart rate. Researchers have proposed that quassinoids may have a role in treating Epstein–Barr virus infection, HIV infection, and neoplasms, possibly by depolarization of mitochondrial membranes.

Because Chinese sumacs spread rapidly and continuously, they often need to be eliminated, posing a health concern for the professionals who remove them. Our patient was exposed to sumac sap through ruptured blisters due to rope burn. Recent literature indicates that this toxin may have mitochondrial mechanisms of action consistent with the pathophysiologic characteristics of transient myocarditis. This case describes an unusual cause of myocarditis in a previously healthy person and illustrates the importance of taking a thorough occupational history from patients who work in the tree removal industry.

John D. Bisognano, Kevin S. McGrody and Abraham M. Spence, University of Rochester Medical Center, Strong Memorial Hospital, Rochester, NY 14642, USA.

From www.annals.org, 19 July 2005, Annals of Internal Medicine Volume 143 Number 2, 159

Integrated Weed Management Workshop for advisers

A new two day accredited training course in Integrated Weed Management (IWM) designed specifically for practising agronomists and weeds advisers is being offered in late September–November 2005. Each workshop will be tailored to the weeds and systems of the region in which it is presented.

The course focuses on the practical application of IWM tactics and how tactics can be used to improve weed management and reduce the selection pressure for herbicide resistant weeds. This course is a desired competency for advisers providing advice on weed management in grain production systems. It is best suited to advisers with at least one years field experience post their degree or diploma, who already have an understanding of herbicide weed control methods and are keen to refine their weed management skills.

While primarily targeted to agronomists dealing one-on-one with growers, this course would also be of benefit to departmental staff seeking knowledge of a diverse range of weed management techniques – to better service their agronomy and grower group clients.

The course will be delivered by John Cameron (ICAN) and Andrew Storrie (NSW DPI) (all workshops), along with input from a range of other weeds research and extension workers at each of the two day workshops. Those involved include: Dr Michael Walsh (WAHRI), David Minkey AgWA, Dr Gurgeet Gill (Adelaide Uni), Dr Michael Widderick (QDPI), Prof. Deirdre Lemerle (NSW DPI).

It dovetails well with planned adviser accreditation programs being developed. While successful completion of the assessments will result in credit for two units of a Diploma in Agriculture, the main benefit will be in the fast tracking of the adviser's ability to provide strategic weed management advice to clients.

Participants will receive a first class resource kit including: RIM software, a 200+ page IWM Manual and an extensive array of PowerPoint presentations on IWM tactics developed by leading weeds experts. This course has been developed in conjunction with the CRC for Australian Weed Management with support from growers and the Federal Government through the GRDC.

Further information: John Cameron (icanconf@tpg.com.au) or Erica McKay, ICAN Pty Ltd (emckay@tpg.com.au).

Weeding with a condom

by Richard Macey, The Age 18/08/05

Scientists are seeking a contraceptive for weeds that could slash Australia's use of toxic sprays. In a world first, they are aiming to trick weeds into shutting down their reproductive system by making them think they are having sex with themselves.

The project is aimed at creating a non-toxic contraceptive spray that mimics the chemistry many plants use to spot and reject their own pollen to avoid being self-fertilised. One of the leaders of the research, Ed Newbigin, an associate professor at Melbourne University's School of Botany, said yesterday that many plants had male and female reproductive organs and could reproduce by themselves.

'A lot of weeds produce flowers that have both boy bits and girl bits, and they should be able to reproduce themselves, but they don't', he said. Nature had given them a protein to detect their own pollen.

The professor described the mechanism triggered by the protein as a chemical condom. He said that if the project, launched yesterday by the Cooperative Research Centre for Australian Weed Management, and also involving CSIRO scientists Andrew Young and Steve Swain, could create a weed contraceptive it would save agriculture billions of dollars a year, significantly reducing the spraying of poisons on farms.

The first target would be wild radish, a weed costing Australian wheat and barley farmers hundreds of millions of dollars a year. 'We think we will have pretty good progress within three years', Professor Newbigin said.

WMSSA WeedBuster Week field trip

The Weed Management Society of South Australia WeedBuster Week field trip – 'Weeds of National Significance in the southern Adelaide Hills' – will be held on Saturday, 8th October 2005, leaving from the Waite Campus at 9 am, back around 5 pm. Bookings and pre-payment are essential as seats are strictly limited.

Further information: Jackie Watts, Secretary, Weed Management Society of SA, Inc., PO Box 517, Torrens Park, SA 5062, Ph: (08)8201 3560, Fax: (08) 8201 3521, Email: jacqueline.watts@flinders.edu.au.

Weed Society of Victoria Inc.

MEMBERSHIP RATES

Students	$20.00
Ordinary	$40.00
Corporate	$100.00

NEW PUBLICATION

Broadleaf weed seedlings of temperate crops and pastures – a field guide

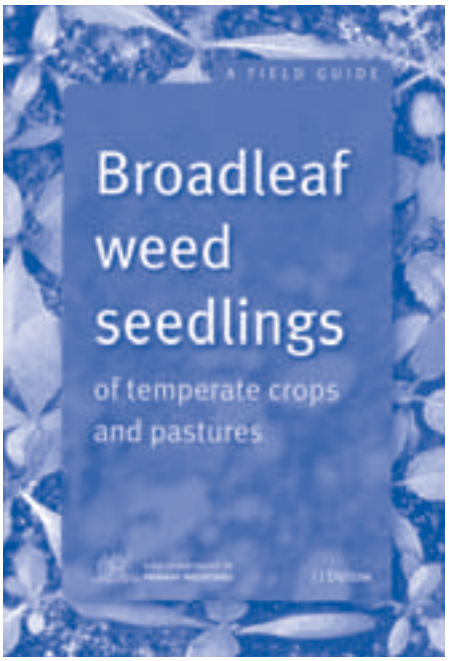
By J.J. Dellow, published in 2005 by NSW Department of Primary Industries
ISBN 0734715366, colour, soft cover, 112 pages, price $A30.00

Available from R.G. and F.J. Richardson, Tel 03 5286 1533
richardson@weedinfo.com.au, www.weedinfo.com.au

Most plant identification guides rely on mature flowering plants for identification because this is when differences between plants are most clearly exhibited. However, where weed management is of primary concern identification at the seedling stage is highly desirable as this allows the farmer/land manager the maximum opportunities to control the weed. Weeds are often most susceptible to herbicides when young so herbicide doses, and expense, can be minimised. Weeds also will have had minimal impact on the crop or pasture when young, and generally they will not have set seed.

This field guide deals with the most important broadleaf weeds of temperate crops and pastures of Australia, covering 95 species made up of 86 weeds, two crops, one forage crop and six legume pasture species. It provides a photograph of each species in their early seedling stage, a short description pointing out unique features and a cross-reference to look-alike species.

Species in the book have been arranged by cotyledon shape, and simple easy-to-follow descriptions of the cotyledons and the first true leaves are provided. While there is no formal key for the identification of seedlings, it is reasonably easy to find the correct species based on the descriptions provided.



Very few books provide information on weed seedlings because of the complexity in growing, identifying and photographing the seedlings. This very useful book from Jim Dellow fills a big gap in weed identification. It is an essential tool for everyone involved in weed management.

R.G. Richardson, Meredith

WSV HOME PAGE www.wsvic.org.au

Newsletter Sponsors: **Dow AgroSciences • Bayer CropScience**

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 secwssv@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

President
Daniel Joubert
Daniel.Joubert@dpi.vic.gov.au

Past President
Richard Denver
richard@weedmanager.net

Vice President
David McLaren
david.mclaren@dpi.vic.gov.au

Treasurer
Norm Stone
norm.stone@bayercropscience.com

Committee Members
Ian Faithfull
Ian.Faithfull@dpi.vic.gov.au

Michael Hansford
Michael.Hansford@dpi.vic.gov.au

Greg Wells
WELLS1@dow.com

CAWS Rep
Kelly Raymond
KRaymond@parks.vic.gov.au

Co-opted Members
Chris Knight
cknight@lmsonline.com.au

Kate McArthur
Kate.Mcarthur@dse.vic.gov.au

Country Members
Les Mitchell
agriserve@shepparton.net.au

Ron Davies
Mobile 0419 308822

Designed and typeset by R.G. and F.J. Richardson Tel/Fax (03) 5286 1533 Email richardson@weedinfo.com.au Website www.weedinfo.com.au