A Good Weed

The Newsletter of the Weed Society of New South Wales Inc.
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Eichhornia crassipes (Mart.) Solms
Water hyacinth
G. Harden Ed. Flora of New South Wales

In This Issue

A Good Weed is Published by the
Weed Society of New South Wales Inc.,
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CAWS Delegates	John Cameron, Stephen Johnson
Committee	Peter Harper [Ingleburn], Mitch Michelmore [Goulburn], Peter Scott, Peter Dowling [Orange], Rex Stanton [Wagga], Bertie Hennecke [Richmond], Jim Dellow [Orange].

Committee meeting dates have been set as follows;

19 August – UWS Richmond
21 October – Pennant Hills
16 December – UWS Richmond
17 November – Wagga Wagga
16 December – UWS Richmond

All members are welcome at meetings; check with the Secretary for the final date, time and place as changes can be made to these arrangements.

Weeds in Print

Weeds received some publicity in the article *A Weed is a Weed is a Weed* in the 2 June Domain section of the Sydney Morning Herald. The article was written by gardening writer Shirley Stackhouse.

The article highlighted the recent CSIRO report *Jumping the Garden Fence: Invasive Garden Plants of Australia* and discussed different perspectives of what is a weed. Worth a read if you can find it.

New Members

We welcome the following new members;

Adam Muyt of Cook, ACT. Catchment Officer, Murrumbidgee Catchment Management Authority.

Weed Society of NSW Travel Support Grant Awarded

In the March Newsletter we called for applications for the Societies' Travel Support Grant. The Grant is available to members of this Society only.

At the Committee meeting held at Katoomba on June 17 it was decided to award the 2005 Grant to Ms. Emilie-Jane Ens, a Ph.D. student at the University of Wollongong. The value of the award is $1500 and Ms. Ens will use it to assist with her expenses in presenting a paper at the 8th International Conference on the Biology and Management of Alien Plant Invasions to be held at Katowice, Poland on 5-15 September 2005. The approximate title of the paper is "Competition between native plants and bitou bush invasion".

In return for the Award Ms Ens will be expected to submit a written report to the Society for publication in A Good Weed and/or to give a presentation to the Society at an appropriate forum shortly after her return.

Personal Notes

Our Immediate Past President **Bob Trounce** will be retiring from his Weeds Agronomist position with NSW DPI Orange in July after many years service in NSW Agriculture/ NSW DPI. Bob plans to stay in Orange and we hope, still play a role in this Society.

Fourth World Congress on Allelopathy

From Rex Stanton, CSU, Wagga Wagga.

The Fourth World Congress on Allelopathy will be held August 21-26th, Charles Sturt University in Wagga Wagga, Australia. The theme for the Congress is "Establishing the Scientific Base", with a focus on five major issues in allelopathy research. These issues are ecology, chemistry, genetics, novel approaches and allelopathy in rice. International leaders in these research areas have been invited to address the issues in plenary presentations, with further papers on these issues also presented in concurrent sessions. Two special symposia are also included within the Congress, and will deal with allelopathy in natural ecosystems and managed ecosystems.

The triennially awarded Molisch and Grodzinsky Awards will be presented at the congress for outstanding academic achievement and/or service relating to the field of allelopathy and for the best single publication or book relating to allelopathy respectively.

Registrations to attend the Congress are open until July 11, 2005. Late registrations may be accepted after this date, but will attract a penalty fee. If you are unable to attend the Congress, the proceedings of the Congress will be made available online after the conclusion of the congress. Alternatively, electronic or printed copies of the proceedings may be ordered before the end of the congress. Please visit the congress website for more details.
www.csu.edu.au/special/allelopathycongress

Air Safety – Grassed Up – A New Way of Stopping 'Bird Strikes" on Aeroplanes

From The Economist, 4 June 2005-07-01

Aircraft are not the only things that fly around airports. Birds love them, too, because they often have large expanses of grass that provide food. But birds and aircraft do not mix. If a large bird, such as a goose, or a flock of small ones, such as starlings, get sucked into an aircraft engine, the result is not merely terminal for the birds, it can be pretty bad for the engine as well.

Such 'bird-strike' damage is reckoned to cost several billion dollars a year in repairs and delays. But the obvious answer – scare the birds away – is not as easy as it sounds. Birds are cussed creatures, and even if scared off briefly by loud noises or threatening objects, return quickly to the place they came from if it has been providing them with food. And the second-most obvious answer, pave over the grass at hundreds of airports, is even more expensive than 'bird-strike' damage. So Chris Pennell, of AgResearch, a government owned research firm in New Zealand, is trying to provide a third way. He proposes to make the grass itself unpalatable.

Ironically, when Dr. Pennell started the research that led him in this direction he was trying to do the opposite. Many species of grass form symbioses with fungi. The grass provides the fungus with food, and the fungus provides the grass with protection, in the form of poisonous chemicals that discourage herbivores. In New Zealand, the herbivores of interest to most people are sheep, so Dr. Pennell was trying to eliminate these symbioses in the sorts of grass that sheep like eating. Then, one day, a plane he was travelling on was hit by a bird and he started pondering the idea that by increasing the toxicity of grass, rather than reducing it, it might be possible to persuade birds to go elsewhere.

Despite their appearance of monotonous uniformity, grasses come in surprising variety, and so do their symbiotic fungi. Matching the best grass to the best fungus was no easy task. In nature, fungus and grass travel together through the generations. Adult grass plants cannot form new symbioses. Instead, Dr. Pennell had to inoculate embryonic grasses with promising fungal strains and hope that the two would get on together. He then had to grow enough adult plants to see just how unacceptable they were.

He now has two symbiotic cultivars that seem to do the business. One of these is cold-tolerant and grows fastest in the winter, the other is heat-tolerant and grows best in the summer. Canada geese - large, grass eating birds that cause a lot of problems at airports – learn from a single exposure that these grasses are nasty, and will not return to them. Grass eating insects get the message too, so insectivorous birds such as starlings have no reason to hand around the new grasses. At least, that is the result of small-scale trials. Dr. Pennell has now made an arrangement with the airport in Christchurch, New Zealand, to see if it works in the real world. If it does, there will be some hungrier, but longer-lived birds around, and passengers will be less likely to be delayed by avian puree in the engines.

New Publications

Weeds in Winter Pulses – Integrated Solutions by Di Holding and Annabel Bowcher. CRC for Australian Weed Management Technical Series #9.

This booklet provides integrated pulse-based solutions to weed management in annual cropping systems and is available free from the CRC in Adelaide; phone 08 8303 6590 or fax 08 8303 7311. It can also be downloaded from the CRC website.

Broadleaf Weed Seedlings of Temperate Crops and Pastures by Jim Dellow of NSW DPI. Published by NSWDPI, 2005. $30.00

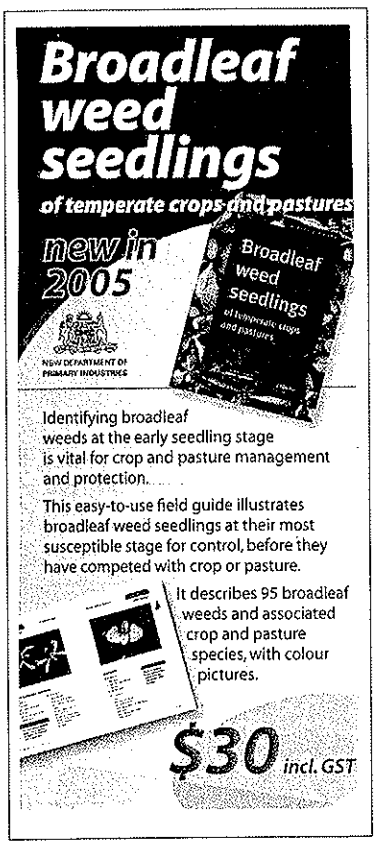
Reviewed by Michael Hood

This book of some 112 pages contains photographs of 94 weeds of temperate crops and pastures. What is unique about the book is that the photographs are all of weeds in the young seedling stage, there is not a flower to be seen. As anyone who makes weed management decisions in crops knows, it is vital to identify weeds when they are very young so that correct management decisions can be made and implemented before the weeds compete too much with the crop. Most weed books give great photographs of flowering weeds, which only helps you identify them after the 'horse has bolted' and the crop is mature, or at least advanced. This book will be invaluable to anyone trying to correctly identify weeds in the seedling stage be they farmers, advisors or researchers and will I am sure find its way into the car glove box or the office of all so concerned.

The photographs are clear and there are notes with each weed pointing out the main

characteristics of the cotyledons and first true leaves. For some weeds the photographs show plants at different stages. At the beginning of the book there are illustrations of the main descriptions used in the text – such as long, short or tapering petiole, cotyledon shapes, presence of hairs and so on. For weeds species such as the mustards/turnips etc. that are difficult to separate, there are notes highlighting distinguishing features and likely areas of confusion, all of which helps greatly in identification.

The only criticism I could find was that sometimes the photographed plants are too young and the shape of the first true leaves is not shown or not clearly so. There are no grass weeds in the book and hopefully they will be included in the next edition, because they too can be difficult to identify as young seedlings.



As they sometimes say in the sharemarket, this is a definite 'buy'.

New Chemicals Guide at Your Fingertips

If you ever wanted to know more about chemicals that may be found in the air you breathe, in the water you drink, or in the soil you live on, now you can find out – through a new and dynamic online guide to chemicals in the Australian environment.

An initiative of the Environment Protection and Heritage Council (EPHC), chaired by the Australian Minister for the Environment and Heritage, Senator Ian Campbell, the National Chemical Reference Guide is the first resource of its kind in Australia.

"The National Chemical Reference Guide not only operates as a central database of environmental criteria but also provides practical and easy to understand explanations about chemical standards and guidelines and links to the original sources of these criteria," Senator Campbell said. "This means that for any one of the 600-plus chemicals in the database, you can find out what environmental standard or guideline values have been set in Australia for that chemical. These standards are used in the management of chemicals in the environment. The Guide will be reviewed and updated as new chemical standards and guidelines are developed. "This will be a valuable resource for anyone interested in chemical standards and guidelines, particularly newcomers to this area."

Chemicals, whether natural or man-made, are a central part of our daily life. They provide us with a wide range of benefits, such as increased agricultural and industrial productivity and improvements in the control of disease. On the other hand chemicals have the potential to cause considerable health and environmental problems throughout their life cycle, from production through to disposal. "As part of our responsibility to protect the environment and human health, Australian governments through EPHC are committed to ensuring chemicals are managed safely," Senator Campbell said. "The online guide pulls together all the existing environmental criteria for chemicals in the air, water, soil, sediment and biota."

The Guide was developed as part of a larger program on environmental management of chemicals by all Australian governments through the Environment Protection and Heritage Council. It is the second project to be released, the first being the National Chemical Information Gateway launched in April 2004.

The project has been funded under the Australian Government's *Sustainable Cities* package as a Year of the Built Environment 2004 initiative in collaboration with the Australian Democrats.

AUSTRALIAN INSTITUTE OF AGRICULTURAL SCIENCE & TECHNOLOGY
Bringing the Elements Together
NSW Division

THE WEED SOCIETY OF NEW SOUTH WALES INC.

Seminar – Where are we and where are we going?

The ever changing face of land and water management in New South Wales

Speakers: Mr. Peter Sutherland – NSW Dept of Infrastructure, Planning and Natural Resources.

Mr. Jim Booth – NSW Dept of Environment and Conservation .

Dr. Mike Curll - NSW Dept of Primary Industries

DATE: Tuesday 19th July 2005.
WHERE: CTA Club, MLC Plaza, Cnr. Martin Place and Castlereagh Street, Sydney
TIME: Coffee at 10am. Seminar starts at 10.30 and ends at 1pm
Members: $60.00; Non members: $80.00; Students: $40.00 which includes a 3 course lunch at 1.15 pm.
RSVP by Tuesday 5th July 2005 to:
Mr Jim Swain, PO Box 438, Wahroonga. NSW 2076 or
Telephone: 02 9484 6771 or Facsimile: 02 9980 1461
E-mail: jayanare@bigpond.net.au
Payment can be made by either credit card or cheque.
Cut off the section below the line and return with your reply.

..... will be attending the seminar "Where are we and where are we going" at the CTA Club on Tuesday 19th July 2005.
Payment of $.....is made by cheque enclosed (payable to Weeds Society or AIAST) or by credit card (Visa, MasterCard or Bankcard only)
Card Details:
Card Number ..... Expiry date...../.....

Name on Card:.....

Signature:.....

countries in Asia and Latin America. Bertie immigrated to Australia in 1994 and started working for the Queensland Department of Lands in Brisbane carrying out research on Prickly Acacia at Alan Fletcher Research Station in Sherwood. Not long after that Bertie joined a team of entomologists from CSIRO Entomology and the Northern Territory Department of Primary Industry and Fisheries to work on biological control of *Mimosa pigra* in the Northern Territory. Based in Darwin, Bertie was responsible for the introduction of the first fungal pathogens as biological control agents of *Mimosa pigra* in Australia and developed mass-culturing and application protocols to apply fungal pathogens. While working in the Northern Territory he started his PhD at the University of Queensland on the Ecology of the fungal pathogen *Phloeospora mimosae-pigrae*, a classical biological control agent of *Mimosa pigra*. Over a period of seven years Bertie worked on a variety of weeds across the Northern Territory gaining extensive experience in management and invasiveness of weeds in remote areas.

At the end of 2001 Bertie moved to Sydney and commenced a post-doctoral position at the Hawkesbury Campus of the University of Western Sydney working on the evaluation of biorationals to control pests and diseases. Based at the Centre for Horticulture and Plant Sciences at the University of Western Sydney, Bertie established the portfolio of biological control and ecology of weeds within the centre with a focus on aquatic weeds such as Salvinia and Alligatorweed. Bertie is engaged in the research for WONS – Aquatic Weeds and the biological control of Salvinia in temperate regions such as the Sydney Basin and Hunter region.

Bertie is married to Georgina and they live in the Blue Mountains

EARLY SUMMER EVENT BEING ORGANISED BY YOUR SOCIETY

A One-day Seminar is currently being organised by the Committee. Further details will be contained in the next edition of A Good Weed.

Reserve the date.

3 November, 2005

Final title yet to be decided but along the theme of –

Aquatic Weed Management on the Hawkesbury River – Problems and Solutions

Sponsors and Exhibitors are Welcome.

Weed Society of New South Wales

Annual General Meeting
17 November 2005

Wagga Wagga, NSW

Time and Venue to be Advised

Weed News from the National Trust

Diana Picone has been appointed Bushland Manager with the National Trust of Australia (NSW) Bushland Management Service. Diana has replaced the former manager, Janet Rannard, who has taken up the position of Bushland Manager with Penrith City Council.

Originally from Melbourne, Diana began her career in science research before moving to Sydney in 1990 with a young family. She became a bushcare volunteer in Randwick in 1998 and, in early 1999, became one of the National Trust's bushland regenerators. Before taking up the position with the National trust, Diana worked as Projects Officer, Bankstown City Council, for approximately four years. This involved many duties including vegetation surveys in the diverse bushland of the area; developing noxious weeds strategies; preparing plans for many of the Council's bushland reserves; assisting with educational activities and co-ordinating bushland restoration projects.

Diana's interests include music, food and bushwalking, as well as spending a lot of time in maintaining a difficult worm farm - a problem of everyone who has ever taken on this activity.

Bushland Management is part of the Conservation Department of the National Trust of Australia (NSW). Its main role is the provision of contract services for conservation of bushland ecosystems for land managers. Most of the Trust's work is centered on Sydney but provides advice throughout the State. The services include: on the ground restoration (weeding, planting, minor erosion control); provision of education/training (Bushcare training courses) and technical advice (bushland management plans, etc.). The Bushland Management Unit is comprised of management and administrative staff who are based in the office at Observatory Hill, Sydney. A committee, Bushland Management Advisory Committee (BMAC), comprising specialists in pertinent disciplines and senior bushland management staff, provides technical advice to support the field operators. Peter Michael and Lawrie Greenup, Weed Society members are on the BMAC.

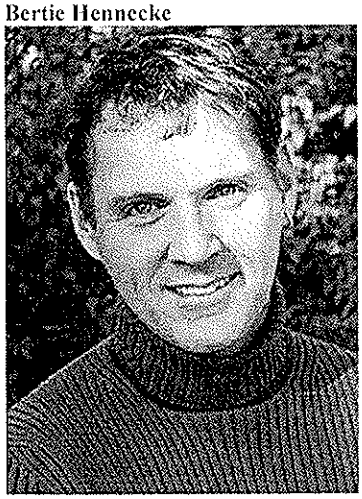
At the operational level, approximately 70 casual field staff are posted, as required, to various bushland sites throughout the Sydney Region. This work is planned and co-ordinated by the full-time Bushland Manager and two part-time Area Managers. They also manage the requirements of the field staff. The administrative staff of Bushland Management co-ordinate the payment of field staff and invoicing of clients.

Further information on the National Trust's bushland activities and publications can obtained by phoning 02 9258 0123.

Who's Who on the Committee

Continuing our regular series this month we have Bertie Hennecke

Bertie Hennecke



Bertie is a newcomer to the committee and has been a member of the society since 2002.

Born and bred in rural Germany, Bertie studied international agricultural science at the University of Kassel in Germany majoring in tropical plant production and plant protection. He completed his degree with a Masters in Agricultural Sciences and gained work experience in a range of

Monitoring Consumer Opinion

From www.biotechnology.gov.au

Comprehensive tracking of consumer responses to biotechnology and GM foods has been undertaken in Australia by the federal government agency Biotechnology Australia. Findings from two major surveys released in 2001 and 2003 are listed below.

Question	2001	2003
Do you think biotechnology will improve our 'way of life' over the next 20 years?	51% said yes	
Is the use of gene technology in food and drink production perceived as useful?	57% perceive it as useful	51% perceive it as useful
Is the use of gene technology in food and drink production perceived as risky?	73% perceive it as risky	74% perceive it as risky
Is the use of gene technology in food and drink morally acceptable?	59% agree	53% agree
Would you be willing to eat GM food?	49% said yes	45% said yes
Would you eat GM fruit and vegetables if they were modified to be healthier?	60% said yes	50% said yes
Would you buy GM fruit and vegetables if they were modified to taste better?	43% said yes	38% said yes
Use of GM medicines	60% would use them	59% would use them
Sources of information on gene technology	Television 78% Newspapers 76%	Television 69% Newspapers 71%

Further findings of the market research include:-

- In 2003, only 18% of respondents agreed that there are 'no fresh fruit and vegetables produced in Australia using gene technology'. [Ed. note – in other words 82% thought that there were, whereas in fact there are none]
- In 2003, many respondents were under the impression that when it comes to agricultural products there is organic and there is everything else. That is, respondents felt that much of the food and drink they currently consume is genetically modified.
- In 2001, 73% of respondents believed that they required more information about the technology.

Weed Society Prize Awarded

Your Society gives a prize each year to the best student in weed science at Sydney University, UWS and Charles Sturt. Judging is done entirely by University staff.

The photograph adjacent shows President Warwick Felton awarding the Sydney University prize to Camilla Whittington at the Scholars Reception on 20 April 2005. Congratulations Camilla.

Recent Herbicide Registrations/Releases

The following herbicide active/products have recently been registered by the APVMA or have been gazetted as soon to be registered.

Cyhalofop-butyl [Barnstorm Herbicide] from Dow Agrosciences Australia Ltd.

Barnstorm is for post-emergence control of barnyard grasses and silver top in rice. It is the first Australian registration for this herbicide. It is a member of the aryloxyphenoxy propionate chemical family.

Picolinafen from Cyanamid Agriculture.

There are two new products containing picolinafen; Sniper Herbicide contains 750 g/kg picolinafen and is for the control of wild radish and capeweed in lupins when applied early post emergent at the 2-6 leaf stage. Paragon Herbicide contains 50 g/L picolinafen plus 500 g/L MCPA present as the ethyl hexyl ester and is for the control of a range of broadleaved weeds in wheat, barley, oats, triticale and rye, again when applied early post emergence.

Flumiclorac pentyl ester [Resource Cotton Defoliant] from Sumitomo Australia Pty. Ltd.

Flumiclorac pentyl ester has initially been released as a cotton defoliant.

Coming Events

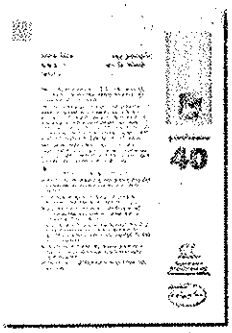
- Seminar – Where are we and where are we going – the ever changing face of land and water management in New South Wales: NSW Weed Society in conjunction with the NSW Branch of the Australian Institute of Agricultural Science and Technology. 19th July 2005. See advertisement in this issue for further details.
- 9-11 August 2005. **58th New Zealand Plant Protection Conference**, Wellington, New Zealand.
- 1st Tasmanian Weed Conference, "A Decade of Change". Tasmanian Weed Society, 13-14th October, 2005. Launceston. www.tasweeds.org. Karen Stewart 03 6421 7654.
- 3 November, 2005. **NSW Weed Society Seminar – Aquatic Weeds** [Full title yet to be decided], University of Western Sydney, Richmond, NSW.
- 17 November, 2005. **NSW Weed Society, Annual General Meeting and Seminar**, Wagga Wagga, NSW.
- 20th **Asian Pacific Weed Science Society Conference** [APWSS]. Rex Hotel, Ho Chi Minh City, Vietnam. Full details on www.cirri.org/en/index-en.htm. November 7-11, 2005. The them is to be "Six decades of weed science from the discovery of 2,4-D"
- **BCPC International Congress** – Crop Science and Technology. SECC, Glasgow, United Kingdom. October 31-November 2, 2005.
- **15th Australian Weeds Conference**. Adelaide Convention Centre, Adelaide, South Australia. 24-28 September 2006. Contact Plevin & Associates Pty. Ltd. 08 8379 8222.
- **8th Queensland Weed Symposium**. Townsville, Queensland. 19-22 June 2005. Contact Wayne Vogler 07 4787 0607 or Raewyn Dooley, Conference Planners NQ, 07 4772 5999.
- 20-22 September, 2005. **Biennial Local Government Noxious Weeds Conference**, Orange, NSW.
- **2nd Victorian Weeds Conference**, Bendigo on 17-18 August 2005. For further information regarding the conference and the presentation of research contact Ros Shepherd at secwssv@surf.net.au.
- **4th World Congress on Allelopathy**. Charles Sturt University, Wagga Wagga, Australia. www.csu.edu.au/special/allelopathycongress/. August 21-26, 2005.
- 13-14 October, 2005. **1st Tasmanian Weeds Conference**. Launceston. www.tasweeds.org
- **9th International Conference on the Ecology and Management of Alien Plant Invasions**. Hyatt Regency Hotel, Perth, WA. 17-21 September 2007. Organised by the Weeds Society of WA [WSWA]. www.congresswest.com.au/emapi9/.
- **International Weed Science Society Conference**. Vancouver, Canada, 2008.
- 30 Jan to 2 Feb 2006. **5th Australian Sorghum Conference**; Radison Palm Meadows, Gold Coast Qld. Contact: Andrew Borrell andrew.borrell@dpi.qld.gov.au
- 21-23 February 2006. **6th Australian Maize Triennial Conference**, Griffith, NSW. Contact: Nick Hutchins, Tanya Cowell, 02 6968 4280, hutchag@bigpond.com http://www.maizeaustralia.com
- 10-15 September, 2006. **Agronomy Society of Australia Conference**. www.agronomy.org.au

New law for training people who use pesticides in their work

From 1 September 2003 there are new rules under the *Pesticides Act 1999* that make training compulsory for commercial users of pesticides.

Pesticides can be dangerous if incorrectly applied or managed, especially to those people who work with pesticides or are regularly exposed to them. Training in their correct use will minimise mistakes being made when using pesticides. It is one of the most effective ways of protecting workers who use pesticides regularly, their families, the community, trade and the environment.

This guidance sheet explains what you must do to comply with these new rules. If you apply pesticides as part of your **job** or **business**, or use other people to apply pesticides, then you need to follow these rules.



About this publication

This publication is also available as pdf: Pestrain03086.pdf (123 kb, requires Acrobat Reader).

What does the new law say?

- People who use pesticides **in their business or as part of their job** must be trained in how to use those pesticides.
- You must not employ or engage a person to use pesticides unless that person is trained.
- A person who is 'trained' has a qualification that shows that they have achieved a specific level of competency in pesticide use.
- Someone who has already done Farmcare, ChemCert or SMARTtrain training is already qualified. This qualification remains valid for five years from the date it was completed.
- People who do not have the required qualification have two years to get trained or have their current skills recognised.
- People who are qualified have to be re-assessed every five years.

Back to top

Who must be trained?

You must be trained if you use pesticides as part of your job or business. For example, if you apply pesticides:

- as a landlord or on behalf of a landlord
- for a local council, government agency or statutory authority
- to a golf course, sporting field or bowling green
- as part of aquaculture and forestry operations
- as part of any commercial agricultural and farming operation, including broadacre farming, horticulture, livestock, market gardening, flower growing, plant nurseries or activities such as fumigating silos or laying baits
- as part of a business, (e.g. a marina, landscape gardening or wood preservation).

What sort of training is needed?

Training is required in the use of all types of pesticides, including herbicides, insecticides, fungicides, bactericides, baits, lures and rodenticides (rat poison).

There is a range of training available to suit all types of pesticide users. In most cases the training involves a two-day course, based on the National Agriculture and Horticulture Training Packages. You can also become qualified by demonstrating to a registered training organisation that you know how to use pesticides in your job or business.

If you are working as a pest management technician under WorkCover NSW legislation or as an aerial applicator under the *Pesticides Act 1999* this new law does not apply to you. There are separate training requirements necessary for this work.

How soon will I need to be trained?

A two-year phase-in period has been provided to give all pesticide users enough time to obtain training or assessment. This means you or your employees will need to be trained by **1 September 2005**.

What are an employer's responsibilities?

After 1 September 2005, you must not employ or engage a person to use pesticides unless that person is correctly trained. An exemption may apply in some agricultural and forestry situations for people who use pesticides on an occasional basis. A separate information sheet explaining this exemption is available from the EPA.

Where can I find out about training?

Information on training courses, providers and assessors is available on the EPA's website at www.epa.nsw.gov.au/pesticides/trainers.htm or by calling the EPA's Pollution Line on 131 555. General information on training is available from the National Training Information Service at www.ntis.gov.au.

Will I need to be retrained in the future?

Every five years you will need to demonstrate that you understand how to use pesticides correctly as part of your job.

What if I have already done some training?

If you already have:

- a certificate under the Farmcare Australia Farm Chemical User Training program, ChemCert Farm Chemical User Training program, or
- a Statement of Attainment under the SMARTtrain Chemical Safety course, SMARTtrain Chemical Application course, SMARTtrain Managing Chemical Use course or the SMARTtrain Chemical Risk Management course,

you do not need to be trained again until five years after that certificate or statement was issued.

I only use small quantities of pesticides in my work – do I have to be trained?

You do not need to be trained if you only use small quantities of household pesticides as part of your business or work, provided that you do **all** of the following:

- you only apply pesticides that are ordinarily used for domestic purposes (e.g. in the home or garden), **and**
- are widely available to the general public at retail outlets such as supermarkets, **and**
- you apply the pesticide by hand or by using hand-held equipment, **and**
- if you use the pesticides outdoors, you use no more than 5 litres/5 kilograms of concentrate or 20 litres/20 kilograms of ready-to-use product, or
- if you use the pesticides indoors you use no more than 1 litre/1kilogram of concentrate or 5 litres/5 kilograms of ready-to-use product.

What happens if I do not comply?

EPA officers may, at any reasonable time, ask for evidence of training. Strict penalties may apply if you are unable to show evidence that you hold a training qualification under the Pesticide Regulation 1995. Penalties may also apply if you misuse a training qualification.

For more information

Fact sheets on a range of the activities mentioned in this guidance sheet are available on the EPA's website at www.epa.nsw.gov.au/pesticides/ or can be obtained by calling the EPA's Pollution Line on 131 555 for the cost of a local call from anywhere in NSW.

If you are not sure whether you should be trained, or if you have further questions about compulsory training, you can contact the EPA pesticides staff on (02) 9995 5799, or call the EPA's Pollution Line on 131 555.

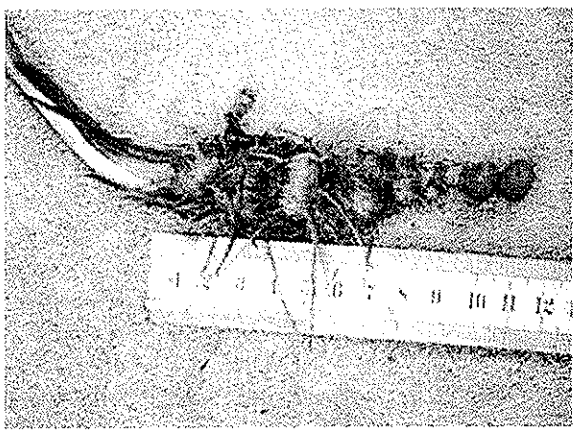
Information supplied by Blue Mountains City Council

Blue Mountains dwellers will have noticed the appearance in spring of the bright fresh green spear-shaped leaves of **Montbretia**, *Crocosmia x crocosmiiflora*. In late summer and autumn these leaves are topped by long spikes of attractive orange tubular flowers.

Montbretia is a vigorous perennial hybrid bulbous plant from South Africa. It has annual leaves and flowers, dying down in autumn after producing its seeds, and reappearing in spring. It is a member of the plant family IRIDACEAE.

Under the Ground

Each Montbretia plant bears long strings of flattened corms which break away when the parent plant is disturbed, and begin to shoot. There may be up to 14 or more of these corms on each plant. As corms break off and and form new plants with corms of their own, the clump thickens and spreads.



Many gardeners have 'got rid of' Montbretia this way: by dumping it on bushland edges. Areas like this are all too common.

An Adaptable Plant

Like many other weeds, Montbretia can tolerate a wide range of environmental conditions - it grows in any soil, wet or dry, poor or rich, in sun or shade. You will see it on roadsides, wasteland and the disturbed edges of bushland, but it thrives along creeklines and watercourses where it spreads with great vigour, fed by nutrients in the stormwater, and competes fiercely with all other plants, including other weeds.

New plants can be seen growing from the tip

How Montbretia Spreads

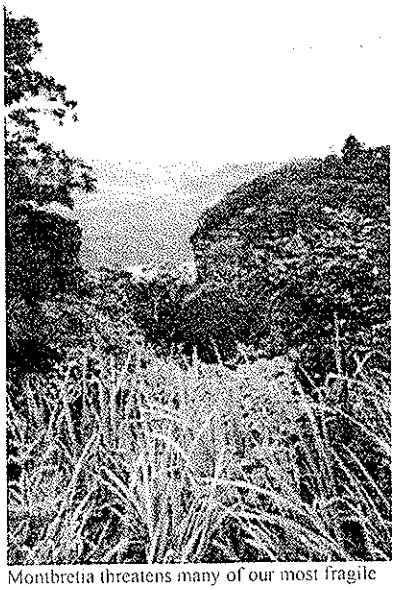
In the Blue Mountains little viable seed is produced, but Montbretia reproduces vegetatively with great vigour. Each corm is a potential new plant, and will shoot when broken free from the parent plant. Corms live and produce plants for two years or more, and new corms are formed annually. Long rhizomes are also produced, each of which grows into a new plant.

Montbretia is also spread by the movement of soil which contains corms - during roadworks, for example. And unfortunately, far too many people have disposed of troublesome garden Montbretia by throwing it over the back fence or by dumping it on bushland edges - the main reason why it is so widespread today.

A Threat to our Bushland

Montbretia competes fiercely, rapidly and successfully with native plants for root space in moist forest, swamps and along watercourses and waterfalls.

It completely dominates the ground layer, crowding out other plants and preventing the germination of any native seed in the soil. The weight of the mass of corms in the ground can cause the collapse of stream banks, erosion and sedimentation.
As stream banks collapse, the corms are washed down to infest new areas.



Montbretia threatens many of our most fragile bushland areas.

A Thoroughly Noxious Weed

The threat to the environment posed by Montbretia has been recognised by its declaration as a noxious weed under category W4c. This means that it may not be sold, propagated or knowingly distributed, and that an occupier must prevent its spread to an adjoining property. It can still be seen at fetes and in nurseries, and you will be doing our environment a great favour if you draw the seller's attention to its noxious status. And don't let anyone tell you it's all right because it's a sterile hybrid! As outlined above, Montbretia does not need seed to spread.

Montbretia is an invasive weed in all states and the ACT.

What Can I Do?

Anyone with some experience of Montbretia will know what a great survivor it is, and how hard it is to control this plant. Getting rid of Montbretia, or even preventing its spread, is certainly not easy. Where possible, dig deeply after rain to remove all the corms. In some situations the weed may form a mass of fine fibrous roots, and removal and replacement of all the soil may be the best option.

The weed responds poorly to herbicide spray, which does not translocate well to the corms. However, one local professional bush regenerator has had some success with Glyphosate sprayed during flowering at a ratio of 1:75. Or the foliage can be swiped over with full strength herbicide after flowering and before fruit set. Many inventive home applicators have been designed! Be sure to use impervious gloves and wash well afterwards. This could be tried in spring, when the plant is growing vigorously and has not yet formed its new annual corm.

Getting Rid of Montbretia

Whatever you do, don't put Montbretia in the compost! Disposal of the corms in the Otto bin is a safe option. Waste arriving at the tip is immediately crushed, compacted and covered with at least 15cm of soil, and the corms would soon be buried too deeply to make germination likely. Corms can be dried in the sun before putting them in the bin, and to speed up this process, they could be sealed in a black plastic garbage bag and 'cooked' in sunlight. Or try microwaving them!

Montbretia invading the Blue Mountains World Heritage National Park. Notice the stormwater outlet, bringing the weed all the nutrients and moisture it requires to dominate the ground level, exclude native plants, and prevent the germination of seeds.

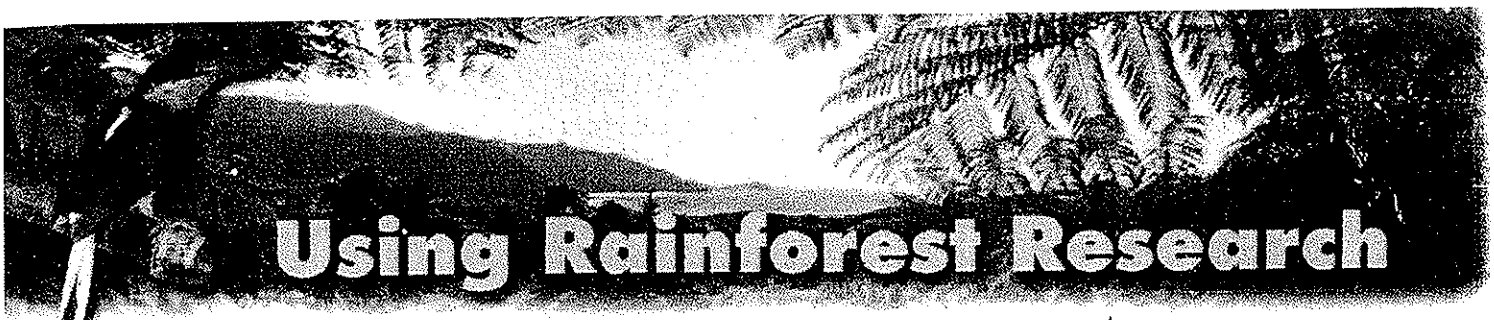
Whatever method is employed, much follow-up work will be needed. Patience and persistence are required. Good luck with the removal! One thing is certain - if you wait until next year there will be much, much more to get rid of.

See this site's weed listing for Montbretia.

References

Blood, Kate *Environmental Weeds A Field Guide for SE Australia*, 2001
Muyt, Adam *Bush Invaders of South-East Australia*, 2001

Photos of corms and rhizomes Anne Bowman
Text and other photos Barbara Harley



Using Rainforest Research

Rainforest weeds and their ways: the need for vigilance

May 2001

Amidst the mosaic of colour and pattern that forms the tropical rainforest landscape, it can be difficult to discern which plants belong there, and which don't. Environmental weeds can establish self-sustaining populations in the Wet Tropics bioregion capable of causing great harm to the natural values for which the area is renowned. An audit undertaken by Garry Werren of the Centre for Tropical Freshwater Research found more than 500 environmental weeds species have become naturalised in the Wet Tropics bioregion. This represents about 11% of total plants in the region, with a further 29 exotic species under suspicion since the last official list was published by the Queensland Herbarium in 2000.

Eradication of environmental weeds often requires back-breaking work and demands on-going vigilance. When dealing with over 500 species, it is crucial that regular investigations of the types and numbers of weeds are undertaken to help determine which weeds pose the greatest threats, which parts of the rainforest are at most risk, how weeds are getting into the natural environment and how to stop them spreading.

The most threatening weeds

The adjacent box lists the twelve weeds, in order of severity, which the audit identified as posing the most serious threats to the environmental integrity of the Wet Tropics bioregion. Two of these species are considered to be *Weeds of National Significance*#.

- Pond Apple# (*Annona glabra*)
- Leucaena (*Leucaena leucocephala*)
- Siam Weed (*Chromolaena odorata*)
- Singapore daisy (*Sphagneticola trilobata*)
- Hymenachne# (*Hymenachne amplexicaulis*)
- Miconia (*Miconia calvescens*)
- Guava (*Psidium guajava*)
- Laurel vines (*Thunbergia* spp.)
- Mile-a-minute (*Mikania micrantha*)
- Para grass (*Brachiaria mutica*)
- Guinea grass (*Panicum maximum*)
- Cucumber tree (*Parmentiera aculeata*)

Left: A mature stand of Pond Apple (*Annona glabra*) which shows the extreme level of infestation this weed is capable of.
Above: Pond Apple fruit and seeds which are attractive to and easily dispersed by animals.
(photographs: Peter van Haaren)

The most threatened ecosystems

The wet tropical environment is ideally suited to exploitation by invasive and opportunistic species of plants.The warm moist climate conditions are highly conducive to rapid growth which continues for most of the year, factors that greatly accelerate the invasion process.

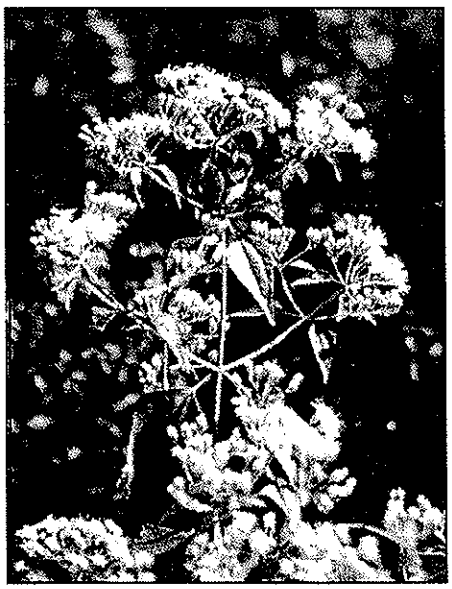
The Wet Tropics bioregion contains a wide range of regional ecosystems that sustain a wealth of biodiversity across cool highland forests, wet sclerophyll zones, hot, dry tropical woodlands and very wet tropical lowland forests and communities. The environment, therefore, offers rich territories for the establishment of a wide array of alien plants. According to risk assessment figures quoted in the audit, 24 regional ecosystems within the Wet Tropics are endangered by weed invasion and a further 17 are of some concern.

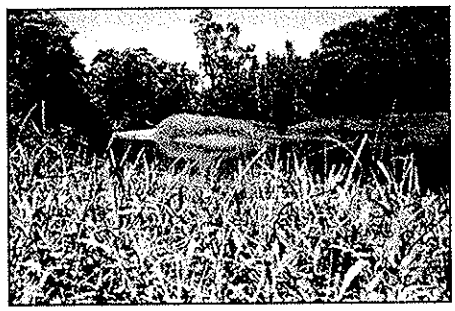
The Rainforest CRC is a research partnership involving the Commonwealth and Queensland State governments, the Wet Tropics Management Authority, the tourism industry, Aboriginal groups, CSIRO, James Cook University, Griffith University and The University of Queensland

How do weeds get into the forest and why do they succeed?

There are many ways weeds can turn up in natural ecosystems, although they are rarely considered pests in all Australian settings. Leucaena, Pará Grass and Guinea Grass were originally introduced as a stock fodder and continue to be cultivated and distributed and Hymenachne was promoted for use as a ponded pasture species until recent years. Ornamental and cultivated plants have also becomes weeds. These include the Mango (*Mangifera indica*), various passionfruits (*Passiflora* spp.), African Tulip (*Spathodea campanulata*) and Brazilian Nightshade (*Solanum seaforthianum*).

Even in the natural rainforest environment, plants constantly compete with other plants and with animals. Many factors determine which species will triumph. Imported species often overcome natural species due to unnatural advantages, succeeding simply because their natural enemies are absent from the new environment or because of special growth forms that enable infiltration into new territory in different ways. Such strategies include replacing the natural herb or shrub layer, forming dense mats over native flora, or having fruit and seeds which are easily dispersed by wind, water or animals. A more insidious category of weeds known as *sleepers* reinforces the need for constant vigilance in the natural environment. Species like Bauhinia (*Bauhinia monandra*) for example, appear as minor weeds now, but can develop into a major pests in the future.





Left: The flowering head of Siam Weed (*Chromolaena odorata*), a weed which ranks 23rd on a list of the world's worst alien invaders.

Above: An infestation of Hymenachne (*Hymenachne amplexicaulis*) or ponded pasture grass, an aggressive weed with the ability to invade wetland ecosystems. *(photographs: Peter van Haaren)*

Stopping the spread

The audit identified several important factors in management of environmental weeds in the Wet Tropics region:

Prevention of Entry

As intentionally introduced weeds outnumber those that are unintentionally introduced, a combination of consultation with the nursery industry, wider public awareness campaigns and properly constituted quarantine exclusion systems are necessary to prevent any future incursions of potential weed species.

Early intervention

Efforts should be focused on identifying *sleeper* weeds before they become widespread and while eradication or control is still feasible.

Integrated weed management

An improved understanding of the ecology and dispersal habits of weeds, how control methods may impact on other aspects of the environment, and coordination between various control agencies will ensure best results for least effort in the most appropriate locations.

Containment of existing weeds

Where weed species are so well established that eradication is no longer possible, efforts should be focused on critical areas of high conservation value which contain endangered regional ecosystems or species.

To obtain a full list of weeds that have naturalised in the Wet Tropics: http://www.rainforest-crc.jcu.edu.au/downloads/WeedList.doc

For further information contact:
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PO Box 6811, Cairns QLD 4870
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P.O. Box 6811, Cairns, Queensland, Australia 4870 • PHONE: (07) 4042 1246 • FAX: (07) 4042 1247
EMAIL: rainforestcrc@jcu.edu.au • WEBSITE: rainforest-crc.jcu.edu.au

Equisetum species - have you seen these plants?

What's the problem?

Horsetails (*Equisetum* spp.) are on the Alert List for Environmental Weeds and are among the world's worst weeds. As well as being highly invasive, horsetails are toxic to livestock and can even kill animals that eat contaminated hay. Horses, cattle and sheep are particularly susceptible and can die within a few hours of eating large amounts of the plants. In high densities, horsetails reduce crop yields by producing inhibitory substances that depress the growth of neighbouring plants.

Twelve of the thirty horsetail species are considered weeds. Common horsetail, *Equisetum arvense*, and scouringrush horsetail, *E. hyemale*, are of most concern in Australia.

How do they spread?

The spread of horsetails occurs almost entirely by rhizomes. Horsetails also produce millions of tiny, dust-like spores that are carried by wind and water. However, most of these spores die of water stress as they require prolonged moist conditions, such as those found in wetland habitats, to successfully germinate.

Horsetails are occasionally being illegally sold as garden ornamentals in some nurseries and markets around Australia, particularly on the east coast. They can also be spread accidentally by the dumping of garden rubbish and contaminated soil, or during road making activities.

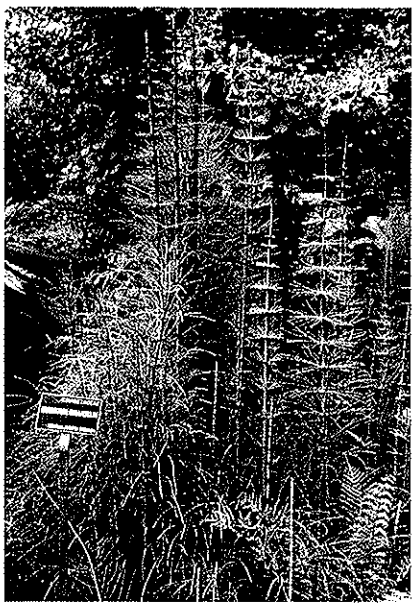
What do they look like?

Horsetails are primitive, non-woody, non-flowering, perennial plants that grow 50-1200 mm in height, depending on the species. Some important features of horsetails are:

- segmented, green vegetative stems that are conspicuous throughout summer after the pale-brown cone-bearing stems have withered
- leaves on main stems in rings of 6 to 18, often dark-brown on lower stems, with 2-3 mm long 'teeth'
- pale-green cones, 10-40 mm long, on the end of fruiting stems.

Where do they grow?

Equisetum spp. have been found from Tasmania to Brisbane in a variety of naturalised and cultivated settings.



Horsetails are primitive, non-woody, non-flowering, perennial plants.
Photo: John Virtue

What do I do if I find them?

The importation of three horsetail species (*E. arvense, E. palustre* and *E. ramosissimum*) is not permitted into Australia. Importation of other *Equisetum* species is not encouraged due to their potential to become serious environmental weeds. Legislation declaring the weed status of horsetails exists in all states and territories except the Northern Territory. In New South Wales, Western Australia and Tasmania *all* species of *Equisetum* are declared as weeds.

Once identified, new occurrences of horsetails should be reported to the relevant state or territory weed management agency or local council. Because horsetail species spread so easily and pose such a serious threat, their control should be undertaken with the appropriate expertise and adequate resources.

To request a hardcopy *Weed Management Guide* on *Equisetum* species go to:

www.deh.gov.au/about/publications/list.html#invasive

Or download a free PDF from:

www.weeds.crc.org.au/documents/wmg_horsetail.pdf

11—THE DAILY TELEGRAPH, www.dailytelegraph.com.au Wednesday, June 29, 2005—11

Booms to weed out river pest

BOOMS will be installed in the Hawkesbury-Nepean River to stem the growth of algal blooms and damaging weeds, the State Government said yesterday.

The move is part of a $250,000 plan to safeguard the long-term health of the waterway.

Other weed reduction methods will be introduced and the Government also will monitor the river to assess the effects of recent flow reductions.

Utilities Minister Frank Sartor said the river was in its worst state for 100 years.

More than 140,000 cubic metres of the weed salvinia was removed along an 88km stretch last year.

"[We want] to make sure that we use this period of dormancy during the winter months, when the salvinia doesn't take a hold, to control it, so we give ourselves ... the best possible chance of not getting an outbreak next summer," Mr Sartor said.

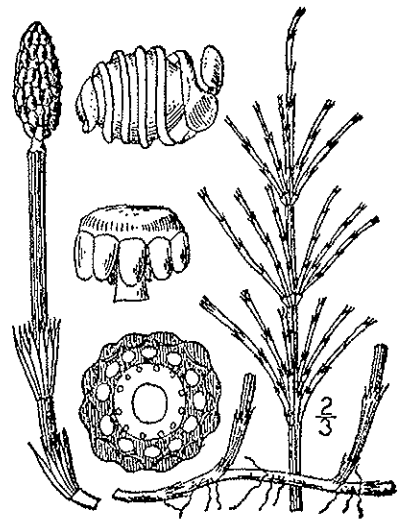
Environment Minister Ian Macdonald said the weed interfered with marine life and the enjoyment of river users.

Salvinia competes with native plants for nutrients, affects the food and shelter of animals within the ecosystem, and can also raise the amount of water lost due to increased evaporation, scientists say.

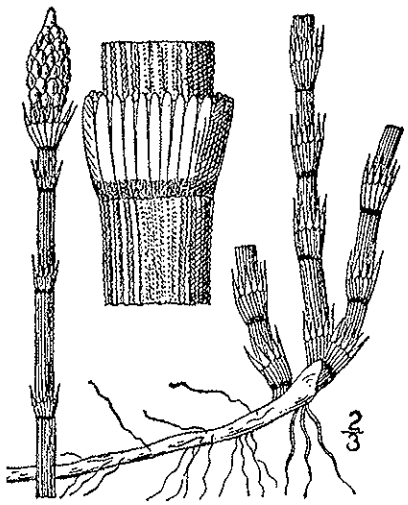
The booms, which help trap the weed and prevent it from spreading, will be placed at several points between North Richmond Bridge and Yarramundi Crossing.

Equisetem species - have you seen these plants?

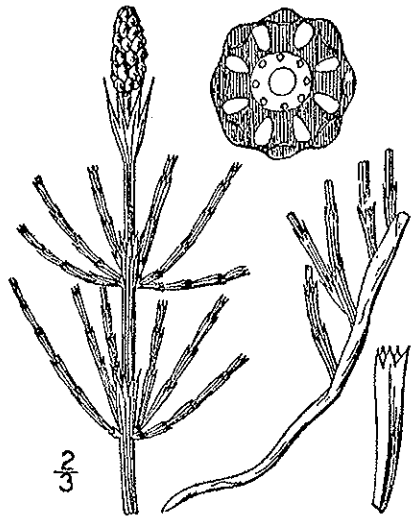
more on page 12...



The stems of common horsetail (*E. arvense*) usually die back to the rhizomes each year. Photo: Kentucky Native Plant Society, USDA-NRCS Plants



E. hyemale occurs on moist or springy grasslands, banks and roadsides. Photo: Kentucky Native Plant Society, USDA-NRCS Plants



The importation of *E. palustre* (shown above), *E. arvense* and *E. hyemale* into Australia is not permitted. Photo: Kentucky Native Plant Society, USDA-NRCS Plants

continued from page 1/...

14.10–14.30 Biological control of Paterson's curse, distribution networks and state-wide agent establishment. *Kerry Roberts*, DPI.

14.30–14.50 Local area priority-setting for weed management on public land in Victoria. *Steve Platt*, DSE.

AFTERNOON TEA

15.20–15.40 TBA. *Greg Fraser*, GRDC.

CONCURRENT SESSION

Session 8 Getting technical

13.30–13.50 A national serrated tussock survey – Impacts and implications of its resistance to the herbicide flupropanate in Australia. *David McLaren, Tereso Morfe*, DPI, *Sethu Durai*, RMIT.

13.50–14.10 Weed mapping – a vision for the future. *Ian Dreher, Naomi Wilson*, DPI.

14.10–14.30 Use of robotic weeding in grain crops. *Malcolm Taylor*, Agropraisals Pty. Ltd.

14.30–14.50 Weed spread prevention wash down project. *Byron Crowe*, DPI.

AFTERNOON TEA

15.20–15.40 Himalayan honeysuckle control at Mt. Buffalo. Parks Victoria.

16.00 CLOSING REMARKS

Further information about the conference can be obtained from the Secretary, WSV, PO Box 987, Frankston, Vic 3199, email secwssv@surf.net.au or from the website.

CALL FOR POSTERS

Space is still available to display posters at the Second Victorian Weed Conference – *Smart weed control, managing for success* – to be held at the All Seasons International Hotel in Bendigo on Wednesday 17 and Thursday 18 August 2005.

If you are interested in presenting a poster related to any of the sessions please send your name, organisation, address, email and poster title, plus a 10 line summary highlighting the significance of your information to the address below ASAP. Summaries of posters will be published in the proceedings. Contact details: Secretary, WSV, PO Box 987, Frankston, Vic 3199, email secwssv@surf.net.au.

Volume 16 Issue 3

Weedscene

Newsletter of the Weed Society of Victoria Inc. May 2005

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

PROGRAM Second Victorian Weed Conference • *Smart weed control, managing for success*
17–18 August 2005 All Seasons International Hotel, Bendigo

DAY 1 Wednesday 17 August

9.00–9.10 Opening.
Daniel Joubert, President, Weed Society of Victoria.

Session 1 Early detection and response

9.10–9.40 Invasive garden plants promoted in the horticultural media and publications. *Kate Blood*, DPI.

9.40–10.10 Weeds in Botanic Gardens. *Roger Spencer*, Royal Botanic Gardens and National Herbarium Melbourne.

10.10–10.40 Review of noxious weeds list. *John Weiss*, DPI.

10.40–11.10 MORNING TEA

Session 2 Integrated weed management

11.10–11.40 IWM on a national scale. *Rachel McFadyen*, CEO, Weeds CRC.

11.40–12.10 Title and speaker to be announced.

12.10–12.40 A national weed law report card. *Andreas Glanznig*, WWF Australia, Sydney.

12.40–13.40 LUNCH/POSTER SESSION

CONCURRENT SESSIONS

Session 3 Early detection and response

13.40–14.00 Management strategies for National Alert List weed species in Victoria. *Michael Hansford*, DPI.

14.00–14.20 What is a 'weed'? Should we continue to say that 'a plant is a weed in the eye of the beholder'? *John Dwyer*, The University of Melbourne.

14.20–14.40 Display at the Melbourne International Flower and Garden Show. *Daniel Joubert*, DPI

14.40–15.00 Nursery people aren't all environmental pests. *Robert Chin*, Nursery and Garden Industry Victoria.

AFTERNOON TEA

15.30–15.50 Environmental accreditation for retail garden centres. *Mary Trigger*, Sustainable Gardening Australia.

15.50–16.10 The state of olives in Victoria, a new industry or a looming weed? *Michael Laity, Ken Young*, The University of Melbourne.

16.10–16.30 Aquatic Weeds of National Significance, coming to a waterway near you! *Phil Moran, Andrew Petroeschevsky, Steve Wingrave*, Futures Centre, Queensland.

16.30–16.50 Operation rapid response, dealing with the potential incursion of branched broomrape. *David McLaren, Geoff Harvey, Kate Blood*, DPI.

Session 4 Integrated weed management

13.40–14.00 Chilean needle grass – integrated grazing for success. *Charles Grech*, DPI.

14.00–14.20 Enviromark: A system for integrated weed management along roadsides. *Christine Corbett*, Greening Australia Tasmania.

14.20–14.40 Integrated management of a Weed of National Significance (WONS) delivering strategic conservation outcomes. *Hillary Cherry, Paul Downey*, NSW Department of Environment and Conservation.

14.40–15.00 Gorse Task Force. *Jeanette Belchambers*, Chair, Gorse Task Force.

AFTERNOON TEA

15.30–15.50 Weed Warriors. *Kate McArthur*, DSE, *Megan McCarthy*, DPI.

15.50–16.10 Evidence based versus community driven weed action plans. *Leigh Dennis*, Corangamite Catchment Management Authority.

16.10–16.30 Understanding and managing weed effects on establishment of native tree seedlings in riparian zones. *Nigel Ainsworth, Fiona Ede*, DPI.

16.30–16.50 Tackling weeds. *Beth Jones*, DSE.

19.00 CONFERENCE DINNER

DAY 2 Thursday 18 August

Session 5 Successful monitoring

9.00-9.30 The monitoring of eradication programs and the evaluation of their performance. *Dane Panetta*, Department of Natural Resources and Mines, Brisbane.

9.30-10.00 Using geospatial technologies to map and monitor environmental weeds. *Jennifer Emeny*, Deakin University.

10.00-10.30 The role of monitoring in weed management: a case study from the Victorian alps. *Kelly Raymond*, Parks Victoria.

10.30-11.00 MORNING TEA

Session 6 Getting technical

11.00-11.30 Molecular genetic breeding to produce non-GM crops. *Jim Kollmorgen*, The University of Melbourne.

11.30-12.00 Environmental impacts on herbicide activity for weed control. *Dick Medd, Todd Andrews*, NSW DPI, Orange.

12.00-12.30 Best application methods and associated issues. *Harry Combellack*, SpraySmart, Bendigo.

12.30-13.30 LUNCH/POSTER SESSION

CONCURRENT SESSIONS

Session 7 Successful monitoring

13.30–13.50 Weed biological control impact assessment in Victoria: current activities. *Tom Morley*, DPI.

13.50–14.10 Willows, Weed of National Significance. *Sarah Holland Clift*, DPI.

A Good Weed

the NEWSLETTER of
The Weed Society of New South Wales
PO Box 438
WAHROONGA NSW 2076

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