**MARCH 2002** 

Newsletter of the Weed Society of Victoria Inc.

ACN: A0011723W ABN: 15 496 325 152

Print Post Approved - Publication Number 310279/00029

#### **Seminar by Visiting Fellow**

NRE's Enhancing Science Networks Visiting Fellows program has funded a visit from Dr. Chris Marshall, Head of Plant Biology at the University of Wales (Bangor).

On Monday 8 April at 2.30 pm he will give a seminar at Keith Turnbull Research Institute, Frankston 'Why are clonal plants such successful weeds'. The seminar is open to all interested persons.

Chris has a great deal of expertise on the ecophysiology of clonal plants

i.e. plants that reproduce by vegetative growth leading to new 'daughter' plants. He has at various times worked on how the clonal growth affects weediness, herbicide translocation, persistence in pasture, and responses to enhanced nitrogen supply and  $\rm CO_2$ . Clonal species he has worked on include salvinia, Japanese knotweed, white clover, perennial ryegrass and cleavers.

For further details contact KTRI on 03 9785 0111.

# 13th Australian Weeds Conference UPDATE

The 13th Australian weeds conference will be held in Perth from 8–13th September 2002. The conference theme is 'Weeds – Threats, Now and Forever' and the program includes keynote speakers Tim Low, Dr. Mark Lonsdale, Dr. Dave Pannell and Prof Robert Zimdahl.

On Tuesday 10 September, speakers from industry groups will discuss various problems and breakthroughs associated with weed management in their business sector. Tuesday will include three specialist workshops; Weed modelling, Successful eradications, and Impact/Evaluation of weed management strategies.

Field Trips on Wednesday 11 September will focus on weeds in four different systems; Agriculture, Horticulture, Tree Cropping, Environment.

Thursday 12 September will include platform presentations and attended poster displays and on Friday 13th September there will be two optional symposiums. The first on Herbicide resistant crops and weeds, the second on Biological control.

Registration brochures come out in March 2002. For more information and details about registration visit the Plant Protection Society website: http://members.iinet.net.au/~weeds/index.htm or register your interest with Dianne McLeod AMIAA, Convention Link, PO Box 257, South Perth 6951. Tel: 08 9450 1662 Fax: 08 9450 2942, Email: convlink@iinet.net.au.

## Organic ways keep weeds at bay

To beat the weed problem without using herbicides, organic producers are successfully using a range of 'organic' and cultural methods. And while conventional growers have highlighted the weed issue as a major factor standing in the way of a move to organic farming, interest in these methods should increase. There are two good reasons: many weeds are developing herbicide resistance; and organic produce is attracting premium prices.

In a recent Australia-wide survey of approximately 300 certified organic broadacre producers, grazing and cultivation topped the list of preferred 'organic' methods for keeping weeds at bay. The survey, conducted by Agriculture Victoria, showed that close to 60% of the organic producers who responded use both grazing and cultivation as weed control methods.

Approximately 30% of organic growers report that they use crop rotation, hay cutting or silage, green manure, fallowing, and high seeding rates to control weeds. Other weed control techniques widely practised by organic growers involve the use of competitive crops, post-sowing cultivation, manual or hand weeding and the collection of weed seeds at the time of harvest.

Certified organic producers need to be able to demonstrate that their produce is grown without the use of chemical herbicides.

From Groundcover No. 37

## 11th Biennial Noxious Weeds Conference Report

Over 300 delegates attended the 11th Biennial Noxious Weeds Conference held in Moama between the 4th and 6th September 2001. The conference theme was 'The Changing Face of Weed Management in the New Millennium'. Associate Professor Rick Roush. Chief Executive Officer for the Cooperative Research Centre for Australian Weed Management, gave the keynote address. He started the speaker program by laying down the challenges weed managers face in the future. One of the main issues he highlighted was the fact that the Australian public in general do not appreciate the major impact invasive species have on agricultural production and biodiversity. Invasive species are second only to land clearing as the most important cause of biodiversity loss.

Delegates and speakers from Queensland, Victoria, South Australia, Tasmania, Australian Capital Territory, New South Wales and Lord Howe Island attended the conference. The conference provided an important forum for forging interstate and interagency links as well as providing an opportunity for delegates to interact with others working in the field of weed management.

The Weed Society of NSW again sponsored the Weed and Seed Identification Competition. Although most delegates think it is a worthwhile competition, very few participated. This is very disappointing for the conference committee who put the effort into organizing the resources required.

This year the conference was jointly organized by NSW Agriculture and Murray Shire. This successful partnership has set a precedent for future conferences and a call has gone out for nominations from other councils to help organize the next conference.

The conference proceedings will soon be available on the NSW Agriculture website: www.agric.nsw.gov.au so take the time to check this website.

Birgitte Verbeek, Agricultural Research Institute Wagga Wagga Adapted from A Good Weed No. 24

Weedscene Volume 13 Issue 2 March 2002

#### Stemming the tea-tree tide

'Control not eradication is the aim' says Airey's Inlet Foreshore Committee of Management Secretary Brian Williams, given that total eradication is beyond the realm of volunteers. Brian's family has owned and lived in one of the original lighthouse homesteads for generations witnessing many changes to the area over time. Coastal Tea-tree, although a native Victorian species, is not naturally native to the area and tends to dominate, thus out-competing or smothering other heath species. It has been present on the reserve for many years but the problem was greatly exacerbated by the Ash Wednesday fires in 1983, which burnt out almost the entire reserve. The aftermath of the fires bought enormous regrowth of Coastal Tea-tree.

Dedicated members of the Airey's Inlet Foreshore Committee of Management and ANGAIR's Friends of the Coastal Reserve have together worked hard over many years to protect their foreshore reserve, including the scenic coastal heathland cliff walk on the majestic cliffs above Airey's Inlet beach. The Foreshore Committee is one of several in the State and with no regular income it relies totally on grant funding to undertake foreshore protection and improvement programs. But what the Airey's Inlet Foreshore Committee and ANGAIR's Friends group lack in income, they more than compensate for with hard work, enthusiasm and working bees to ensure their patch of coast is well managed.

Successes date include to revegetation and the installation of walking paths, steps and safety railing around Split Point Lighthouse and the cliff walk. A key focus of the Committee and Friends groups has been to stem the tide of Coastal Tea-tree which threatens to overrun the beautiful coastal heath of the cliff tops. Members of the Friends group meet once a month to chip away at the problem plants which would otherwise engulf the diverse heathland area. The results have been well worth

Brian says the invaluable assistance of the Australian Trust for Conservation Volunteers Green Corps (now Conservation Volunteers Australia) over the years has provided a much needed boost to the local volunteers. 'These fit and eager young people achieve a great deal in just a few days which not only helps the local environment, but also assists us in achieving our objectives'. Even the local fire brigade pitches in by burning the cut Tea-tree.

The work also protects local wildlife. The rare Swamp Antechinus (Antechinus minimus), a native mouse-like marsupial, and the Rufous Bristlebird (Dasyornis broadbenti), a threatened species, are being sheltered in their native habitat thanks to the groups' work.

From Coast Action/Coastcare 2001

#### Loosestrife causes strife to young sheep on stubbles

The common weed Lesser Loosestrife (*Lythrum hyssopifolia*) has become a dominant plant in some Wimmera stubbles this season, and in one particular case has killed 50 big strong White Suffolk weaners, most of them within a week of grazing the stubble.

The weed is quite common on roadsides and in paddocks throughout Victoria, the southwest tablelands of NSW, SA and south-west WA. Paddocks containing the weed are more often grazed safely than not, but it has been known to kill sheep in these areas since 1974. There has also been a report that two cows died after eating it.

The actual toxin(s) are unknown, but damage is done to the sheep's liver and kidneys. Depending on the dose, it may kill in three days, but some sheep may take up to three weeks to die after suffering abdominal pain, loss of appetite, depression, lethargy and extreme loss of weight.

Older sheep are not as commonly affected, which may be due to their experience with the weed, or in seeking out the grain in stubble before

consuming safer and more palatable weeds.

Young sheep go for the green weeds first, which seem to be the most toxic, and may quickly consume a fatal dose if the weed is prolific in the stubble.

The weed prefers wetter areas and crabholes. There may be various combinations of cultivation, climate, and management that have combined to support its growth this year.

Farmers should have a good look for potentially poisonous weeds in stubbles before grazing young sheep on them, and consider whether they are familiar with the weeds, and have experience in stubble grazing.

#### **Bob Crawford, District Veterinary Officer, Horsham**

#### Editor's note

After this article appeared in some local newspapers several more cases were reported but most of them turned out to be Pulpy Kidney, so care must be taken to look at all the symptoms and evidence before concluding that sheep have been poisoned by weeds.

### WEEDeck – a new weed identification tool

A new weed identification tool known as 'WEEDeck' is now available as part of the National Weeds Strategy. With high quality weed photographs and easy to follow descriptions, and initial production of each card subsidized by various sponsors, WEEDeck is much cheaper and quicker than other deck options, and is suitable for local government, catchment authorities and public utilities. There are 140 cards now available, with a target of 300 by June 2003.

For further information contact: http://www.weeds.org.au/identification.htm, Sainty and Associates on (02) 9332 2661, or Salvo Vitelli (07) 340 62859.

From Weedshine No.12

# Occurrence of weeds in the perennial pasture zone of New South Wales

A survey was conducted of the vegetation of the temperate perennial pasture zone of NSW in spring 1999. Less than 10% of the paddocks surveyed had the 50% 'improved' perennial grass level considered desirable for maximum production.

On average, perennial grasses formed about a third of the pasture biomass and, when only the 'improved' perennial species were considered, this figure dropped to around a quarter of the biomass. As a group, legumes were almost ubiquitous (99% frequency) and relatively abundant (22% of the pasture biomass, on average) and broadleaf weeds were similarly widespread but less abundant (<9% of the biomass).

Annual grasses (especially *Vulpia* spp.) formed, on average, 26% of the pasture biomass. This level of abundance of annual grass weeds has an estimated opportunity cost of about \$33 per hectare per year – representing a total loss of more than \$230 million to the New South Wales pastoral industry. Low-cost pasture management technologies that limit the abundance of annual grasses do exist. Their adoption and adaptation to local conditions need to be promoted within an integrated pasture management strategy.

From a Research Report by J.J. Dellow, G.C. Wilson, W.McG. King and B.A. Auld. Published in Plant Protection Quarterly Volume 17 Issue 1 2002

#### **WSV Book Prize**

Thank you for awarding me the Weed Society of Victoria's book prize for my weed assignment. You have asked me to write about my background and what influenced me to study at Longerenong Agricultural College.

I enjoy being outdoors and doing practical hands-on work. My home is in a small town in the LaTrobe Valley called Newborough. All through my childhood my parents would catch my brothers and sisters building cubbies and fixing things as normal kids do. However, I suppose I never really grew out of it. Over the years I conned my parents into letting me keep quite a number of pets from goldfish to three working dogs, pigeons and chooks. I remember at one stage I had 25 ducks in our backyard and Mum decided, after noticing that her lawn and garden had disappeared, that I had to get rid of them.

We did not live on a farm but had a number of friends who did. Through work experience in college I was able to work on a hobby farm, consisting mainly of poultry, emus, deer, parrots and game birds, and have done so for the last four years.

Whilst finishing my VCE I started to think about what I would like to do and I discovered that I really did not know so I decided to stay on and study at the McMillan Agricultural College in Warragul. I completed my first year there in 2000 studying an Advanced Diploma of Agriculture in Dairy. I had no idea what I was getting myself into because I had never worked with cows before. Dairy farmers are very tuned into knowing how their pastures are going. This is where I learnt a lot about weeds and different grasses. I had no idea how many grasses could feed a cow. I just assumed they ate grass, not rye grass and clover. I really enjoyed visiting farms and working on them whilst completing that year. However, it was not exactly what or where I wanted to be after all, I needed to spread my wings further.

I spoke to a few of my lecturers and they suggested that I go to Longerenong Agricultural College in Horsham. I had never heard of the place and was not too sure at first but I bit the bullet and enrolled in 2001. I am glad I did, I have made a great many friends, been to many a B&S ball and had a lot of fun while learning about the land. The school even let me keep my goldfish.

I am currently in my second and final year at the college studying for an Advanced Diploma in Agriculture. When I complete my course I hope to work on a farm somewhere, but I have not quite decided yet.

**Erica George** 

#### PRESIDENT'S REPORT 2001-2002

Presented at the Annual General Meeting of The Weed Society of Victoria Inc. 28 February 2002

I would like to thank the committee for all their hard work over the past twelve months. Especially Norm and Ros who have done more than their fair share for the Society over the past decade. Ros has again put in the reliable effort and organization required to run our seminars and keep our minutes. Norm has again tended our books and done all that is required of us to satisfy GST and Business Affairs. A special thanks to them both.

In these times when we seem to need to put more effort into our paid work it becomes difficult to find the time we would like to put into our voluntary tasks. This made finding times when we were all able to get together for committee meetings difficult. We tried to be flexible and managed to have ten meetings over the year including the AGM and two meetings held by tele-conference. I would like to thank Greg Wells for organizing our phone meetings.

Six issues of 'Weedscene' were produced and I thank the Richardsons for their efforts producing our newsletters, often with little contribution from members.

At the AGM last year the SWOT analysis was presented. This was an analysis of the Strengths Weaknesses Opportunities and Threats for our Society which were gathered at the AGM in February 2000. From the SWOT analysis it was felt that a name without the word science in it would appeal to a broader audience. At the last AGM it was voted that we change our name, since then we have dealt with the various departments to deal with the legal issues of changing our name as well as having new brochures and stationary printed.

Much of the committee's time has been taken up with developing our business plan and a survey of members. These were done in order to better serve our Society in the coming years. We used the SWOT analysis presented last year to pinpoint some of the important directions we needed to be moving in. I would like to thank El and Jack for the efforts they put into the ground work of these tasks.

Our other major activities for the year were organizing the Turf day seminar in August and organizing today's seminar. The Turf day was very successful and we had over 70 attendees and today has been a success with over 130 participants. KTRI had an open day in October and we took the opportunity to put up a display and get some public exposure, we gained a few extra members for our efforts.

The Society's contribution to databasing specimens at the herbarium continued this year. In the year 2000 a grant from NRE and \$10 000 from the Society enabled 7274 specimens of introduced plants to be databased up till February last year. A further grant of \$12 000 from NRE last year has enabled this work to continue and a further 4089 specimens have been added to the database and 10529 entries have been edited. This additional databasing represents all the introduced dicots, gymnosperms and 10 families of monocots.

This year we granted three weed prizes to students: Liz Francis from Burnley, Kaarin Anna-Stavia from Glenormiston and Erica George from Longerenong. These will be presented at award ceremonies later this year.

CAWSS or The Council of Australian Weed Science Societies had 4 meetings over the past year, all by phone conference. Our Society was represented at each of these. The Council, like our own Society, is trying to develop a business plan - this has not been an easy task. An opportunity will be made at the Weeds Conference in Perth in September for all Society members to comment on and discuss the finer details of the plan. The Council also have been kept up to date and had input into the coming weed conference in September. Some of the other activities of the Council have been starting on the production of a Noxious Weeds CD, granting of a Young Scientist Award and other activities to raise the profile and awareness in the community of weeds.

**Wendy Bedggood, President** 



## Weed Society of Victoria membership rates:

Students \$20.00 Ordinary \$35.00 Corporate \$80.00

Weedscene Volume 13 Issue 2 March 2002

#### **Herbicide Tolerant Crops - Potential for Weediness**

#### Introduction

Herbicide tolerant (HT) crops offer significant potential to improve crop and weed management (e.g., Bowran et al. 1997). However, HT crops have also attracted particular attention in the debate about genetically modified (GM) foods, and subsequently, concern in the general community about their agricultural and environmental impact. One popular misperception is that HT crops encourage increased herbicide use overall. But common sense (why would growers use more herbicide than necessary?) and analyses of data on the actual use on soybeans, cotton, and canola strongly indicate instead that herbicide use has either declined or remained the same. In soybeans yields are slightly up but herbicide use is significantly down; in cotton, the yields and profits are up (Fernandez-Cornejo and McBride 2000); and yields and profits are up in canola (Canola Council of Canada 2001). Further, erosion is generally down (and conservation of soil carbon is up) due to reduced use of tillage.

Still, there are other agricultural and environmental issues:

- (1) Will the HT crops themselves become more weedy?
- (2) Will the HT crops cross with and contribute herbicide resistance to weeds?
- (3) Will changes in herbicide use practices increase resistance to key herbicides in weeds?

The only GM herbicide-tolerant crop that has thus far been approved for commercial use in Australia is glyphosate tolerant (Round-up Ready) cotton. However, Australia has had longer experience with herbicide tolerant canola, first with triazine tolerant (TT) canola and now more recently with imidazolinone ('imi-') tolerant (Clearfield) canola (Preston and Rieger 2000). TT canola has been grown on roughly a million hectares of southern Australia in a single year. Neither TT nor imi-tolerant canola has attracted much public attention because they were produced by classical breeding. However, from an agronomic perspective they raise all of the same questions as GM herbicide tolerant crops. TT canola in particular has increased the use of a persistent herbicide (atrazine) and imi-tolerant canola increases the use of group B herbicides, which are already highly at risk for resistance. Several crops grown in Australia, including wheat, soybeans, clover, and lupins, have been engineered for resistance to herbicides either in Australia (Preston and Rieger 2000) or overseas, but are not currently being targeted for release in Australia. BASF is also planning to release imi-tolerant corn in Australia. However, in this paper I will focus on cotton and canola, which have been the herbicide tolerant crops of greatest concern.

#### Will HT crops themselves become more weedy?

Genetically engineered crops will generally require greater crop hygiene to avoid problems with resistant volunteers. There have already been reports of increased problems with volunteer canola in Canada. There are news reports that in Manitoba this has been ascribed to a variety of factors, mainly a wet spring that encouraged early weed growth and prevented farmers from carrying out their usual preseeding weed control activities. Contaminated seed, wind-blown pollen and seed transported by heavy rains and flooding water are also being blamed by researchers and affected farmers. In most areas in Australia, one would normally be able to control volunteer canola with a phenoxy herbicide such as 2,4-D in a cereal phase. More importantly, hybridization of different herbicide resistance types from neighbouring cultivars in Canada has reduced the flexibility of growers in controlling the volunteers in other crops. Thus, it may prove useful to plant cultivars with different herbicide tolerances at least a few hundred metres from one another to avoid natural crosses that produce volunteers with multiple herbicide tolerances. Also the intentional stacking of multiple herbicide resistance genes in the same cultivar should be avoided. European regulations forbid the development of plants resistant to several herbicides (New Scientist, 21 October 2000, page 6).

A team from the Weeds CRC led by Dr. Mary Rieger has recently studied pollen flow in canola at multiple sites across all mainland states in southern Australia. Dr. Rieger's team used imi-tolerance as a marker to quantify the extent to which pollen from the herbicide resistant field was pollinating neighbouring herbicide susceptible canola. Hundreds of thousands of canola seeds were collected from each field last year, germinated, and the seedlings screened this year to determine whether they were the offspring of herbicide resistant pollen. Roughly 40 million seedlings were tested for resistance. The key points emerging from the data are that average pollination in paddocks more than a few metres from the source paddock is less than 0.1%, and could not be detected beyond about 3000 metres. These values are

lower than are commonly reported from overseas research. However, they still suggest that growers should be aware of the long term potential for multiple resistant canola volunteers to evolve from natural crosses of neighbouring canola fields, a process that would be enhanced by further selection from the use of herbicides. My understanding is that such outcrossing would be even less in cotton.

Another concern, at least for regulatory agencies, is that herbicide tolerant crops could in themselves become more weedy outside crop fields where the relevant herbicides might be used, such as along roadsides. However, they seem unlikely to become any more weedy outside crop fields than non-HT crop varieties have been historically. Even the 'roadside' scenario is seen by many as unlikely to be very significant given the range of herbicides and slashing practices used. Still, given the caution associated with transgenic crops, various agencies are being encouraged to monitor for increased spread of crop volunteers, especially insect resistant (Bt) cotton.

#### Will HT crops contribute herbicide resistance to weeds?

Outcrossing to weeds is not possible for most crops in Australia, including cotton (Brown et al. 1997, Brubaker et al. 1999); wheat, and corn, which have no close relatives that are sufficiently interfertile in the field. However, outcrossing to weeds is an issue for canola and lupins. Dr. Mary Rieger and colleagues in the Weeds CRC have experimentally investigated outcrossing between canola and wild radish (Rieger et al. 2001). Using nontransgenic herbicide resistance as a marker, Rieger screened more than 52 million seeds and found two plants that are hybrids on the basis of their herbicide resistance and chromosome numbers, a frequency of  $4 \times 10^{-8}$ . These experiments already imply that hybridization is no more common than the naturally occurring genes for resistance to imidazolinones (at about 10<sup>-5</sup>) and triazines in weeds. However, there may still be concerns about the potential for the transfer of glyphosate resistance to wild radish, even though most growers seem not to rely on glyphosate for control of wild radish anyway.

#### Will TH crops lead to worse herbicide resistance in weeds?

Perhaps the greatest threat from HT crops is not in their volunteers or

continued on page 6/...

#### .../continued from page 5

outcrossing to weeds, but from changes in herbicide use that could increase resistance to key herbicides in weeds not related to the crops, such as annual ryegrass. Resistance in annual ryegrass is not just theoretical but current, and evolving already without help from HT crops.

#### Good agricultural practice guidelines

In an effort to address the problems discussed above (and more), a committee for the Standing Committee on Agriculture and Resource Management (SCARM) developed a report entitled 'Good Agricultural Practice Guidelines for the Use of Genetically Modified Plants', which included the following recommendations:

- (1) If the herbicide to which resistance has been introduced is currently used to control volunteers of the crop, or other weedy outbreaks of the crop, management plans will be required for control of these weeds by other means.
- (2) Ideally, pyramiding of genes for resistance to more than one herbicide in a given cultivar should be avoided, unless experimentally demonstrated to be useful/effective in a particular farming system.
- (3) Ideally, the same herbicide resistance trait should not be introduced into different crops used in a rotational system in a given region. However, if this does occur, management plans should be devised to limit the use of the same herbicides on the same paddocks in the successive years, to avoid the development of herbicide resistant weeds.

HT crops carry both great promise and some threats. Our aim clearly must be to guarantee the promises and reduce the threats by good management practices.

Rick Roush, CRC for Weed Management Systems, University of Adelaide Adapted from Weedshine No.12

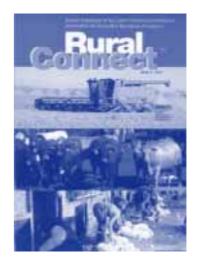
## Farmers warned of toxic garden bulbs

The Department of Agriculture, Western Australia, has issued a warning about poisonous garden bulbs, following a report of stock poisoning at Tambellup, near Katanning. Department. Stock inspector Eileen O'Neill said garden magazines were currently promoting spring flowering bulbs because it was time to plant them, but some had the potential to become weeds and kill stock.

'In particular, farmers should avoid chincherinchee, a native plant from South Africa that has adapted well to Western Australia and can escape from the garden into pastures and poison livestock,' said Miss O'Neill. 'Animals poisoned by the plant appear drowsy then develop a severe, foetid, very watery to slightly haemorrhagic diarrhoea about 24 hours later, which may persist for up to three weeks. Death usually occurs between two and five days after eating the plant, however ingestion of large quantities could cause the animals to collapse and die suddenly without showing signs. Sheep, cattle, horses and rabbits may be affected, and cattle often develop blindness 10-14 days after eating the plant.'

The Department has advised farmers to also avoid other toxic species closely related to chincherinchee, including Arab's eye or pheasant's eye, pregnant onion, and star-of-Bethlehem. Miss O'Neill said farmers should avoid garden plants advertised as 'naturalizing freely' or 'looks after itself, as these species obviously have weed potential. 'Farmers with limited access to nurseries may also be tempted to purchase plants from the Internet, however what is a good garden plant in another area could be a noxious weed here,' she said. Although chincherinchee has not been declared a weed, because it is already a common garden plant, farmers need to implement biosecurity measures to protect their farms from weeds and other pests.

## Rural Connect one-stop shop for whole farm information needs



Rural Connect is a partnership between the grains, meat and wool industries and a unique distribution channel for rural publishers. By bringing together the latest research, market and marketing information for grains, meat and wool, Rural Connect provides a one-stop information centre for Australian farmers.

Through the year, a full catalogue and three newsletter updates present the latest material from Grains Research Development Corporation (GRDC), Meat and Livestock Australia (MLA) and Australian Wool Innovation Pty Ltd (AWI), as well as other quality publishers with a rural focus – bringing over 100 titles to your door.

With Rural Connect you can check out the latest material for pastures and cereal crops, animal production and health, farm management, marketing and storage plus much more. Rural Connect brings together practical and appropriate information about all of your business and because the information is from the bodies set up to serve your industry, you can be sure of its quality.

Call toll free and order your copy of the catalogue. Tel: 1800 110044, Fax: 1800 009988, Email: rural connect@ozemail.com.au.

#### WSV HOME PAGE: http://www.vicnet.net.au/~weedsoc/

#### **DIRECTORY - Weed Society of Victoria Inc.**

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

Bob Richardson R.G. and F.J. Richardson PO Box 42 MEREDITH VIC 3333 Telephone/Fax (03) 5286 1533 email: richardson@weedinfo.com.au

Editorial and Advertising: Telephone/Fax (03) 5286 1533