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# A Good Weed



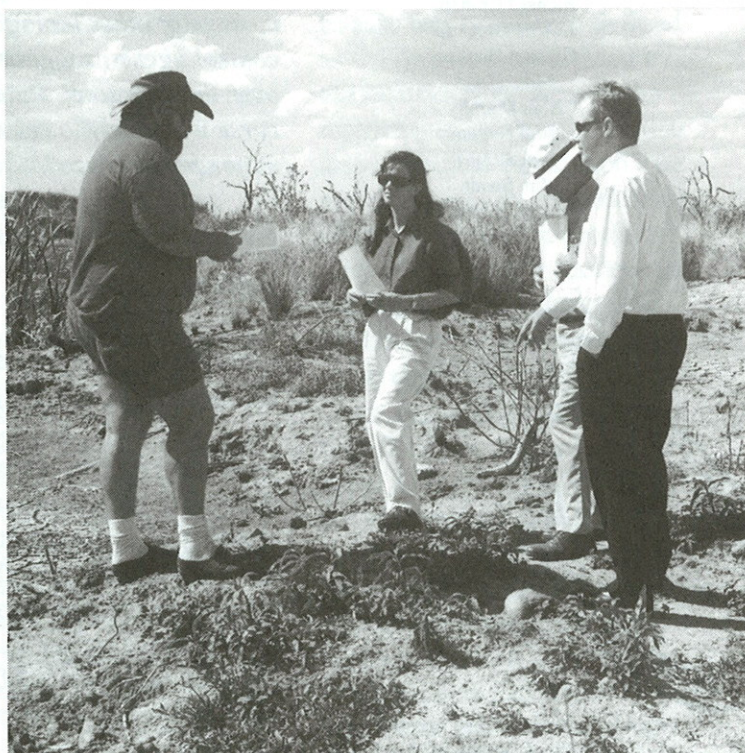
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## #27

## October 2002

### **THIS ISSUE**

- Editorial..... 2
- Are you Promoting the Society..... 5
- Technical Report..... 5
  - Significant Weeds of Pastures..... 5
- Conference Reports..... 6
  - 13<sup>th</sup> Australian Weeds Conference..... 6
- CAWSS Report..... 7
- Members News..... 8
- Weed Society Tidbits..... 9
- Special Request..... 10
- Good Reads ..... 10
- Coming Events..... 10
- Weed Society AGM & Dinner ..... 11



The fight to control alligator weed in Barrenbox Swamp near Griffith has been long and hard. Above from left- Pat Spence (Murrumbidgee Irrigation) shows remnants of the infestation in Barrenbox to Birgitte Verbeek, Peter Gray and Richard Graham while explaining the control strategy being followed.

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## EDITORIAL

*Biological control has many attractive features and is widely viewed as a potentially significant way of controlling introduced weeds. This avenue of research has been pursued primarily by CSIRO, but arguably, results over the years have been disappointingly slow. Paterson's curse is a case in point. Spring time still sees the hills come alive with purple hues, and a relevant question is – have we made any progress with biological control of Paterson's curse? The following article indicates that we have, and with the spread of a range of other biological control agents, suggests that over the long term, Paterson's curse is unlikely to remain a major pasture weed.*

### Not a rosy future for Paterson's curse

#### - \$100M-a-year weed faces biocontrol in Australia

Biological control is frequently claimed to be both environmentally and economically more sustainable than alternative methods, and chemical control in particular. However, rigorous assessments of biological control programs are rare. Here we report on a benefit/cost (B/C) analysis of the program for biological control of Paterson's curse (*Echium* spp.) in Australia, which was begun by CSIRO in 1972. The new analysis projects economic gains from biological control based on observed values for the rate of spread of

an insect agent and its impact on the target weed in Australia.

*Echium plantagineum* (Paterson's curse) is an introduced winter annual pasture weed of Mediterranean origin. Free of native Mediterranean plant and insect communities, it has become one of the dominant pasture weeds of temperate Australia. Although three other introduced *Echium* species (*E. vulgare*, *E. italicum* and *E. simplex*) occur as weeds in this country, *E. plantagineum* is the most important as a pasture weed in this country, but in this study the four species are referred to collectively as 'Echium'. Although relatively nutritious in terms of digestible nutrients, and valued as a pasture plant in some places, *Echium* contains pyrrolizidine alkaloids that are poisonous to livestock, reducing weight gain and wool clip and, in severe cases, lead to death. From its start as a garden flower in the 1840s, *Echium* is now estimated to occur as a weed on over 30 million hectares in Australia.

*Echium* was first suggested as a candidate for biological control at the Australian Weeds Council in 1971. From its base in Montpellier, France, CSIRO Entomology soon started surveys in the weed's native range. Of the hundred or more insect species recorded on *Echium*, eight were selected as possible biological control agents, with the first imported into quarantine in Canberra in 1979. In 1980, a small group of graziers and apiarists lodged an injunction in the Supreme Court of South Australia to stop the biological control program

as they considered the loss of *Echium* a threat to their livelihoods.

The Supreme Court injunction was eventually lifted. The importation of insects into Australia resumed and rigorous specificity testing undertaken. Six insect species have been successfully released: a leaf mining moth, *Dialectica scaliariella*, crown and root weevils, *Mogulones larvatus* and *M. geographicus*, a root beetle, *Longitarsus echii*, a stem boring beetle, *Phytoecia coerulescens* and a pollen beetle *Meligethes planiusculus*. Of these insects, *D. scaliariella* and *M. larvatus* were introduced first and have been released across the geographic range of the weed. *M. larvatus* is known to be limiting the *Echium* population at two of the earliest release sites and approaching control at many of the younger release sites.

Based on the positive population trend of *M. larvatus* and its ability to limit the weed at an increasing number of sites, the economic analysis of the 1985 IAC report was revisited so projected economic gains from biological control could be quantified. Unlike previous B/C analysis of biological control, where an insect is given an arbitrary impact and rate of spread, the current analysis incorporates observed values based on the biology and ecology of *M. larvatus* and its weedy host, *Echium*, over the past 9 years.

#### **Background & Assumptions**

Of some 1000 releases of *M. larvatus*, 400 have been con-

firmed successful in terms of insect survival to subsequent seasons. Of these successful releases, 189 were in the State of NSW, 143 were in Victoria, while South Australia (SA) and Western Australia (WA) had only 34 each. For this analytical model, the rates of spread of insects and development of attack rates on *Echium*, and the rates of expected progress of geographic coverage of maximum attack, based on field data and observations by scientists on the project, are described as functions of time. Function parameters differ according to climate zone in terms of the date of the autumn season break (opening brainfall); both attack and spread rates are highest with an early autumn break (March) and lowest with a late break (May). This variation occurs because late breaks tend to decouple the occurrence synchrony of *Echium* and *M. larvatus*.

The new study uses the district location, grazing area and stocking rate information supplied by the IAC, updating and correcting an earlier analysis, and overlaying the new insect release location and date information. Autumn break date classifications were assigned to districts according to the month in which greater than 25 mm median rainfall is received, based on long-term monthly median rainfall maps from the Bureau of Meteorology. This allowed projected extents of insect spread to be mapped.

There are several conservative assumptions in our analysis. One is that all long-term

biological control of *Echium* results only from the activity of *M. larvatus* even though there is good reason to anticipate complementary successes of the other agents released against the weed. The model conservatively assumes no further releases beyond the 400; in reality, state departments of agriculture continue to respond to farmers' requests, and the Australian Wool Innovation and Meat and Livestock Australia continue important support for releases of bio-control agents against *Echium*. We also assumed for districts in which there had been more than one release, the maximum spread of insects from each release was to the area defined as the district total divided by the number of releases in the district – an underestimate that also simplifies calculation. The model focuses on the valuation of increased pasture productivity and ignores reductions in conventional spraying costs. While reductions in pasture spray costs may be anticipated, these are likely to be replaced with the costs of measures taken by farmers to facilitate the success of the biological control agents and to limit reinvasion by other pasture weeds. The model also ignores control costs and losses attributable to *Echium* as a weed in crops, which amount only to some \$1.2 million annually and may be assumed to continue indefinitely.

The economic damage caused by *Echium* in pastures is assumed to remain unaffected by *M. larvatus* at attack levels below 50%. Attack levels above this are assumed to result

in increasing reductions in economic loss.

The attack and spread simulation model, set for the particular size, release dates and autumn break parameters of each sub-district, was used to generate a time series of areas with varying degrees of partial economic relief from *Echium*. The years required to reach these limits differed according to district size and number of releases. For each year in each district, a ratio was calculated of the (weighted) relieved area to the total area. These ratios were multiplied times the maximum proportions by which total stocking rates were assumed to be increased in the absence of *Echium* in the 1985 IAC report, district by district (these ranged from a maximum of 0.2 to a minimum of -0.1). Total stocking rates for each district were expressed as dry sheep equivalents (DSE) where 1 DSE relates to 1 wool sheep, 1.5 DSE for each meat sheep, 10 DSE for each beef animal and 15 DSE for each dairy cow.

In order to express the aggregate economic relief in dollar terms a conservative value per DSE recovered was required. The lowest gross margin per DSE in NSW is \$8.80 for wool-producing wethers. A value of \$8 per DSE was chosen as a conservative base for modelling, though values double this are recorded for sheep and cattle enterprises in NSW where the greatest infestations of *Echium* occur. The year-by-year estimates of dollar value loss relief were aggregated across districts by state.

### What were the Results

The greatest benefits from biocontrol of *Echium* are anticipated in NSW (on the order of \$60m per year by 2025), followed by Victoria and WA. Comparatively less benefit is expected for South Australia, where the late autumn breaks put *M. larvatus* at a disadvantage.

With a value of \$8 per DSE, annual benefits in terms of increased productivity of grazing lands are projected to increase from near-zero in 2000 to some \$75m by 2015, and \$90m by 2025. The discounted (5%) net present value (NPV) of the benefit-cost stream from 1972 to 2015 is projected at \$287m, for a B/C ratio over 14:1. For the 1972-2050 period the NPV is \$1074m for a B/C ratio of over 50:1. The internal rate of return (discount rate that drives the B/C ratio to zero) exceeds 19%.

The success story projected for biological control of *Echium* in Australia is likely to be at a slower pace than envisaged by the IAC report of 1985. Nevertheless, the return on investments is expected to be very respectable indeed. Keeping in mind that just over \$14m has been spent on the biocontrol program for *Echium*, the high net present values anticipated with all but the most extreme combinations of low DSE values and high discount rates give strong assurance of success.

Further analysis is needed to determine the value of targeting additional insect releases beyond the 400 of the 1993-

2000 period where there are gaps in populations that would otherwise take many years to fill.

### Acknowledgments

This report represents a collaborative effort under the Cooperative Research Centre for Australian Weed Management. The authors wish to thank David Vincent and David Pearce, of the Centre for International Economics (CIE), for raising a number of important questions over the course of the analysis. We thank those collaborating at the state level with CSIRO-Entomology: Kerry Roberts, Agriculture Victoria, KTRI, Frankston; Ross Stanger, SARDI, Entomology Unit, Adelaide; Paul Sullivan, NSW Agriculture, Tamworth; and Paul Wilson, Agriculture WA, South Perth. Funding support for such work from AWI and MLA Australia is also gratefully acknowledged.

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<http://pest.cabweb.org/Journals/BI/Bni23-2/Gennews.htm>

### ARE YOU PROMOTING THE SOCIETY?

The Weed Society relies on a continual influx of new members to maintain its vigour. If you meet colleagues who have recently entered Weed Management, Weed Research or have recently moved to NSW, please let them know about the Society and benefits of membership. Information and an application form is available on our Website <[www.nswweedsoc.org.au](http://www.nswweedsoc.org.au)> .

### SEMINAR PROCEEDINGS

Copies of the proceedings printed from papers presented at the Society's Seminars are available at a cost of \$20 for Weed Management 2000 August 2000 and Training for Weed Managers March 2001 Abstracts of the papers presented at Weeds Woe to Go July 2002, cost \$10 each

## TECHNICAL REPORT

### Weeds of Significance to the Grazing Industries of New South Wales

In April 2002, Meat and Livestock Australia (MLA) commissioned the CRC for Australian Weed Management to conduct an evaluation of weeds that are of significance to Australian grazing industries. The terms of reference were to:

- list weeds of significance
- assess their economic impact
- identify opportunities and priorities for research and development.

The team nominated from NSW was Jim Dellow and Warren King from OAI, Orange and David Officer from Grafton.

This brief report reviews weeds considered to be of significance to western NSW (ie all of the State with the exception of the coastal strip).

Excluding the perennial pasture zone (PPZ) [ref. Dellow *et al.* 2002], the remainder of NSW has never been surveyed in any systematic fashion. Individual weeds have been surveyed; however, they have been done on an individual species basis and usually only conducted by questionnaires sent to regional agronomists and weeds inspectors. Nevertheless, numerous surveys have been conducted and are summarised below. Well in excess of fifty percent of the State remains completely unsurveyed and this includes the wheat/sheep/ cropping belt, the very extensive Western Division and the coastal divisions.

The weeds considered in this paper pose livestock grazing problems in relation to production, carcass and product damage and poisoning. Tables 1 and 2 list the weeds nominated by Dellow and King as significant inhibitors to the grazing livestock industries.

Grass weeds, and in particular the perennial species, were considered perhaps the most troublesome and threatening to both NSW and many other interstate areas. Apart from the obvious grass weeds such as serrated tussock, Chilean needle grass and parramatta grass, the

grass browntop bent is generally overlooked as being one of the major weeds of the tablelands of eastern Australia. The broadleaf weeds also had many obvious candidates (Table 2). *Lippia* has come to prominence as a major agricultural and environmental weed in recent times.

Likewise, the woody weed list (Table 2) indicated the obvious candidates. Olive, both African and European, are considered the major woody weed threat, particularly to NSW (Dellow pers. observation). However, there appears to be little acknowledgment, or realisation and appreciation of this enormous long-term threat.

*J.J. Dellow  
W.McG. King  
NSW Agriculture, Orange*

Ref: Dellow, J.J., Wilson, G.C., King, W.McG. and Auld, B.A. (2002). Occurrence of weeds in the perennial pasture zone of New South Wales *Plant Protection Quarterly* 17(1), 12-16.

Table 1. Western Rangeland weeds (native western woody weeds not included)

Mesquite	<i>Prosopis</i> spp.
Asphodelus	<i>Asphodelus fistulosus</i>
Boxthorn	<i>Lycium ferocissimum</i>
Lippia	<i>Phyla canescens</i>
Noogoora burrs	<i>Xanthium</i> spp.
Billy buttons	<i>Ixiolaena brevicompta</i>

Ref. P. Milthorpe (pers. comm.)

Table 2. Weed species nominated (not in order of importance)

☉ Sleeper weeds

Grass Weeds		Broadleaf Weeds		Woody Weeds	
<i>Annual Grasses</i>		Silverleaf nightshade	<i>Solanum elaeagnifolium</i>	African olive	<i>Olea europaea</i>
Vulpia	<i>Vulpia</i> spp.	St John's wort	<i>Hypericum perforatum</i>		<i>Olea europaea</i> spp. <i>africana</i>
Annual ryegrass	<i>Lolium rigidum</i>	Scotch thistles	<i>Onopordum</i> spp.	Blackberry	<i>Rubus fruticosus</i> agg.
Brome grasses	<i>Bromus</i> spp.	Paterson's curse	<i>Echium plantagineum</i>	Sweet briar	<i>Rosa rubiginosa</i>
Barley grasses	<i>Hordeum</i> spp.	Parthenium weed	<i>Parthenium hysterophorus</i>	Broom	<i>Cytisus scoparius</i>
<i>Perennial grasses</i>		Blue Heliotrope	<i>Heliotropium amplexicaule</i>	Sifton bush	<i>Cassinia arcuata</i>
Serrated tussock	<i>Nassella</i> <i>trichotoma</i>	Common heliotrope	<i>Heliotropium europeum</i>	Boxthorn	<i>Lycium ferocissimum</i>
Chilean needlegrass	<i>Nassella neesiana</i>	Lippia	<i>Phyla canescens</i>	Native woody weeds	Various species
African lovegrass	<i>Eragrostis</i> <i>curvula</i>	Saffron thistle	<i>Carthamus lanatus</i>		
Browntop bent	<i>Agrostis capillaris</i>	Thistle spp. -	<i>Cirsium vulgare</i>		
Coolatai grass	<i>Hyparrhenia hirta</i>		<i>Silybum marianum</i>		
☉ <i>Nassella</i> spp.	Sleepers	Catsear	<i>Hypochaeris radicata</i>		
Three-awned speargrass	<i>Aristida ramosa</i>	Sorrel	<i>Acetosella vulgaris</i>		
		Brassica weeds	<i>Rapistrum rugosum</i>		
		Brassica weeds	<i>Sisymbrium</i> spp.		
		Brassica weeds	<i>Brassica tournefortii</i>		
		☉ Centaurea thistles	<i>Centaurea nigra</i>		
		☉	<i>Centaurea maculosa</i>		
		☉ Hawkweeds	<i>Hieracium</i> spp.		
		Aquatic weeds	<i>Salvinia molesta</i>		
		Aquatic weeds	<i>Alternanthera</i> <i>philoxeroides</i>		
		Aquatic weeds	<i>Eichhornia crassipes</i>		

## CONFERENCE REPORTS

### 13<sup>th</sup> Australian Weeds Conference 8-13<sup>th</sup> September 2002

1. The 13<sup>th</sup> Australian Weeds conference was recently held in Perth. The conference was well attended (over 400) including participants from a number of countries outside Australia (Canada, USA, South Africa, New Zealand, Italy, Switzerland, UK, Belgium, Ecuador, France, Kenya, India, Japan, Denmark, Spain and Israel). The format included three days of presentations and posters, a day field-trip and a Herbicide Resistance Symposium.

I often find conferences with concurrent sessions to be frustrating as papers of interest can be presented at the same

time in different rooms. But with such a large number of presentations to get through, I guess there is no alternative. My interests are generally in non-agricultural weed control and the sessions I attended on weed management in situations such as forestry, nurseries etc were very interesting. I particularly enjoyed the Computer Assisted Weed Management Workshop. This involved around 15 presentations in 1.5 hours on a range of computer programs related to weed management. The other significant highlight was the Forestry field trip that included an inspection of forestry herbicide trials. The social occasions also proved to be invaluable in meeting a range of people.

I can recommend the proceedings as a summary of the conference presentations and posters and look forward to the

14<sup>th</sup> Australian Weeds Conference in 2004 in Wagga Wagga.

*Jyri Kaapro, Research & Development Specialist, Bayer Environmental Science*

2. The 13th Australian Weeds Conference was well attended by candidates from across Australia and the world. This was despite the relative isolation Western Australia and the high cost of attending. The venue, the Sheraton Hotel, was an ideal location with enough rooms of sufficient size to cope with the concurrent sessions, and multitudinous CRC AWM meetings. A wide range of topics and a large number of papers were presented at the conference.

While this is a "something for everyone" approach, running four con-current sessions means that it is often difficult to see all

the presentations you desire. The standard of presentation was very good, and the contractors who managed the technical side of the presentations were excellent, making seamless changes between speakers possible. Having the papers "peer" reviewed was also a bonus, although it meant much work for the committee.

In my opinion, the biggest "let down" of the conference were the field trips. The "Agronomy" tour went through some very interesting country, however there was no running commentary for "us easterners". Following some trials at the Ag WA research station, we visited the richest farmers in York to look at their planting machinery and their large sheep lot-feeding enterprise. Surprisingly a farmer field day was running nearby that day, as well as being the site for a huge export hay operation. Negative comments were received regarding other tours as well. The price of nearly \$90 for the day was also a sore point. Possibly some free time (1/2 day?) for delegates should be considered for the next conference.

*Andrew Storrie  
Weeds Agronomist  
Tamworth Centre for Crop  
Improvement*

3. An early look at the agenda for the 13th Australian Weeds Conference implied a heavy focus on non-chemical control and modelling on weed systems. I questioned the benefits of a heavy BASF attendance at the forum, other than the resistance discussions, and did not put a lot of plan-

ning into attendance. It was therefore pleasantly surprising to find a very strong international contingent presenting papers, and participating in discussions from the start of the conference. The organising committee put a lot of emphasis on the quality of papers, and posters, and this showed in terms of presentation quality, paper preparation and posters. The focus of the papers and posters was also wide ranging.

The participation of Robert Zimdahl, Rick Roush and Peter Raven in discussions of integrated weed management and ethics also expanded the forums scope into longer term aspects of weed management.

The take-home message for me from the conference included: the need to manage potential conflict between farming needs for managing threats to profitability, against other users or stakeholders (water management, forestry, noxious weeds, non-GM, etc) will be more complex, and will require our industry to become more effective at communication (not necessarily education).

Weed resistance appears to be manageable on Australian farms (farmers are still profitably farming in various areas of Australia, despite multiple resistance), via planned use of herbicides MoA's, non herbicide management techniques, and education of users on the benefits of integrated weed management. Evident is the lack of new innovations in modes of action herbicides in the last 10 years (last was ACCase), and the lack of real

prospects for another major breakthrough in the near term. GM crops (specifically Round-up Ready crops) have had huge impacts on agricultural practice by farmers and changed market values significantly for the pesticide companies. The impact of GM crops so far (aside from the ethical perceptions and market implications) is reduced herbicide input and significant lowering of the herbicide/ insecticide markets for pesticides. Flow on from this could have seen mergers of the large pesticide companies and corresponding reduced research input into new innovations.

*Steve Jones  
Technical Manager  
BASF Australia Ltd*

## CAWSS REPORT

The major business considered at the CAWSS meeting on 9<sup>th</sup> September was the next Australian Weeds Conference, conference frequency, and development of a strategic plan for the CAWSS. The NSW Society was represented by Steve Sutherland and Prof Jim Pratley. I also attended in my capacity as Vice President. This report was produced prior to the Minutes being available so should be treated as a draft.

**Frequency of Conferences**  
CAWSS also considered the frequency of the Australian Weeds Conferences. The NSW representatives outlined the NSW Society view. After much debate, CAWSS decided to switch to a conference every 2 years.

### The 14<sup>th</sup> Australian Weeds Conference

CAWSS agreed that the Conference proposal outlined by Prof Pratley was sound. The Council agreed to the Weed Society of NSW Inc (NSW Society) to convene the 14<sup>th</sup> Australian Weeds Conference, provided the NSW Society agrees to the financial arrangements. The financial arrangements include that the NSW Society

- keep separate accounts for the Conference,
- agrees to equally share any surplus or loss from the Conference after returning any advances provided by CAWSS
- obtains adequate insurance cover to protect CAWSS interests and

CAWSS agreed to advance up to \$15,000 to the NSW Society if a business plan justifying the advance is received from the NSW Society.

### Date of 14<sup>th</sup> Australian Weeds Conference

In light of the decision to have a more frequent conference CAWSS considered the date of the next Conference. CAWSS asked the NSW representatives whether it would be possible to convene the 14<sup>th</sup> Conference in August or September 2004 rather than July 2005. The NSW Society representatives outlined that although they could not commit the NSW Society, the proposed organising committee's planning would allow it to convene the Conference at Wagga Wagga in Sept 2004. In light of this CAWSS agreed to have the Conference in NSW in 2004 and SA in 2006 unless a

society formed in NT.

### Joint Conference with NZ PPS

After much discussion the original proposal to convene a joint conference with the NZ Plant Protection Society was amended. CAWSS agreed instead to invite the NZPPS to participate in the next Australian Weeds Conference.

**Strategic plan and constitutional amendments**  
CAWSS considered a strategic plan and possible constitutional amendments. These will be circulated to Member Societies for comment.

### CAWSS Office Holders

CAWSS appointed Mr Carter to President and Mr Bishop (Tas) as Vice-President from the 15 December for the next term. I undertook also to identify a secretary/treasurer for CAWSS to appoint out of session.

*R J Carter*

*CAWSS President elect*

## MEMBERS NEWS

### Retirement of Dr Malcolm Campbell

Malcolm Campbell retired after nearly 47 years of service on 31<sup>st</sup> January 2002. Malcolm completed high school at Farrer Memorial High School, graduated B SC. Agr. (Sydney) in 1955 when he started researching control of serrated tussock and pasture establishment at Bathurst. In 1966 he achieved his Masters degree through Sydney University. He was awarded the degree of Ph.D. by

the University of New England in 1973 and moved to Orange Agricultural Research Institute. His research objective was the development of techniques for pasture improvement with emphasis on non-arable land and replacement of inferior species with improved pastures. He specialised in replacing serrated tussock with competitive and productive pasture species. Large areas of the Central Tablelands of NSW have been pasture improved using techniques that he developed.

Malcolm quickly gained the reputation as a world authority on the establishment of surface sown seed. This has been recognised by his promotion to Principal Research Scientist in 1979 and an invitation by the Government of Iran to assist with pasture establishment in difficult terrain. In 1975-76 Malcolm made three trips to Iran to conduct research and make recommendations. He was invited as a visiting expert to Morocco, China and Korea and made frequent consultations with colleagues in New Zealand and throughout Australia. Malcolm is highly respected by the graziers and District Agronomists in the tablelands for his pasture improvement research and practical, economically sound solutions to weed control and pasture establishment problems. Malcolm expanded his research to include nitrophilous weeds, Poa tussock, African lovegrass, St John's wort and Sifton bush.

Malcolm was a foundation member and secretary of the



Grassland Society of NSW Inc. since it was established in 1985 and has been a member of the NSW Weed Society for most of his career.

He was awarded the Farrer Memorial Medal in 1989 and the Public Service medal in 1990 for his Outstanding contribution to agricultural research. He was one of only 20 people awarded a special bicentenary award from the Royal Agricultural Society for his contribution to agriculture during the previous 50 years. His cheerful helpfulness and enthusiasm was an inspiration to all his acquaintances.

Friends and colleagues gathered on two occasions to farewell Malcolm at Orange Agricultural Institute and a dinner held at Dundry League, Orange. On both occasions, acquaintances, university colleagues and lecturers joined Malcolm in this milestone celebration.

Dr Kevin Sheridan, Director-General, NSW Agriculture presented Malcolm with a set of goblets from the Department and Malcolm and his wife Edna also received a landscape painting by Ted Lewis (Orange) depicting a paddock of pasture and ...you guessed it... serrated tussock plants.

### **And Malcolm's replacement - Karl Grigulis**

Karl recently joined NSW Agriculture as a Research Agronomist based at the CSIRO Division of Plant Industries in Canberra. In 1999, he finished his PhD at the

Australian National University on the ecology and population dynamics of Paterson's curse, after which he completed two years of post-doctoral work in a French research laboratory (CNRS, Montpellier). Here he worked on projects investigating what makes some plant communities more prone to weed invasion than others, and studying the invasion of a North African tussock grass into abandoned agricultural land in southern Spain. At NSW Agriculture he will be focusing his research on developing improved control strategies for perennial grass weeds such as serrated tussock, Chilean needle grass and African lovegrass on the Southern and Central Tablelands of NSW. He is particularly interested in understanding how improvements to pasture management may increase the natural resistance of pastures to weed invasion.

He intends to work closely with a wide range of groups in developing his research program, and is currently organising a series of discussion groups to identify research priorities with managers, advisers and regulatory officers concerned with the management of perennial grass weeds throughout the Southern and Central Tablelands of NSW. His location in Canberra will also allow him to combine the pasture research expertise of NSW Agriculture scientists with weed control work being carried out by CSIRO scientists, for example the biological control program for serrated tussock and Chilean Needle Grass.

## **WEED SOCIETY TIDBITS**

### **Subscription reminder**

All members are reminded that our subscription year is a calendar year. Renewal notices for subscriptions are mailed out at the end of January each year. Your prompt payment is appreciated to reduce the work to follow up late payments.

We would also appreciate early notification of changes to your residential address or place of employment. Please advise the Secretary or any committee member so our mail and newsletter "*A Good Weed*" will reach you. Newsletters wrongly addressed now incur a return charge fee, so you can save your Society unnecessary costs if you keep us informed of your correct address.

### **Are you being served by your Society?**

The aims of the NSW Weed Society include service to its members through dissemination of information. This is carried out in many forms such as seminars and training forums. The Committee welcomes any suggestions from members about ways that we could serve you better. Possible country meetings, seminar topics or training needs can be suggested to the committee for discussion.

The Newsletter "*A Good Weed*" provides information on research and weed issues to members, but is also available for members to comment on these issues. The editors choose articles, which sometimes may be controversial, and your opin-

ion could be aired in "Letters to the Editor". Please let us have your thoughts, comments, book reviews or contributions in any way. Contributions can be e-mailed to Peter Dowling. peter.dowling@agric.nsw.gov.au

*Alex McLennan*

## SPECIAL REQUEST

The Weed Society of NSW is one of six member societies of the Council of Australian Weed Science Societies (CAWSS). Most would be familiar with CAWSS through the Australian Weeds Conference conducted every three years by a member society. The CAWSS also supports member societies' conferences, workshops and provides travel grants.

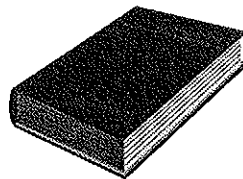
At the recent meeting in Perth, I was elected as President and Andrew Bishop of Tasmania, Vice President.

From December 2002, it is the Weed Society of NSW' turn to provide the secretariat for CAWSS. We are looking for an enthusiastic member to represent NSW on CAWSS (nominations are made at the AGM in November) and to take on the secretary/treasurer role. This is not an onerous task as CAWSS meets by telephone only two or three times a year, with a face to face meeting to coincide with the Australian Weeds Conference. There are few financial transactions, as the major activities are not conducted by CAWSS but by member societies. Involvement in CAWSS enables the establishment of contacts at a high level throughout Australia.

The role of secretary or treasurer will open up doors to anyone involved in weed management. Lead roles on national organisations look good on any CV.

Past secretary/treasurers were provided with an honorarium and supported attendance at the Australian Weeds Conference. I encourage anyone interested in representing NSW on CAWSS or taking on a role such as secretary/treasurer, to nominate for a position or call me to discuss the role.

*Richard J Carter*  
*President Elect, CAWSS*



## OTHER GOOD READS

### Weed Control in Lucerne and Pastures 2002

This NSW Agriculture publication was published earlier this year. The booklet, 54 pages, tabulates the herbicides registered for weed control in seedling and established lucerne as well as establishing and established pastures. Included is a compatibility chart and approximate retail prices of the herbicides referred to in the booklet. A new section on legal responsibilities in applying herbicides and a form for keeping pesticide application

information is also included. The **Pesticide Act 1999** now requires all farmers and spray contractors (commercial pesticide users) to keep records of their pesticide application; effective from 31 July 2002.

Authors, Jim Dellow (Weeds Agronomist) and Mark Scott (Agricultural Chemicals Officer) stress the booklet is a guide to the safe and correct use of herbicides for farmers choosing to use them; it is not a recommendation to use pesticides. They also stress the booklet is not a replacement for the registered label.

Copies are available from NSW Agriculture, free of charge.

## COMING EVENTS

2003

February 2003

Weed Science Society of America Annual Meeting  
Jacksonville, Florida Contact:  
Weed Science Society of America

April 27 - May 02

11th Symposium on  
Biological Control of Weeds  
Canberra, Australia Contact:  
Sharon Corey

Fax: +61-02-6246-4177

E-mail:

[sharon.corey@ento.csiro.au](mailto:sharon.corey@ento.csiro.au)

Details:

<http://www.ento.csiro.au/weeds2003/index.html>

July 26 - Aug 1

7<sup>th</sup> International Rangeland Congress

Venue: International Convention Centre, Durban South Africa  
Contact: NISC South Africa P/L,  
PO Box 377 Grahamstown 6140 S.Africa.



**THE WEED SOCIETY  
OF NEW SOUTH WALES INC.**

**ANNUAL GENERAL MEETING**

**DATE: FRIDAY 15 NOVEMBER, 2002**

**VENUE: Blue Mountains City Council  
2 Civic place  
KATOOMBA**

**TIME: 4-30 P.M.**

**ANNUAL DINNER**

**DATE: FRIDAY 15 NOVEMBER, 2002**

**VENUE: Journey Café/Restaurant  
54 Katoomba Street  
KATOOMBA**

**TIME: 7-00 P.M. FOR 7-30 P.M. DINNER**

**COST: \$36 PER PERSON**

**SPEAKER: Lynton Auld, Degraded Lands Program Manager,  
Blue Mountains City Council**

**TOPIC: Weed mapping process in the Blue Mountains**

**RSVP by Wednesday 10 November  
to Bob Trounce-(02) 6391 3156  
or Leon Smith- (02) 4739 3564**

# *A Good Weed*

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

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NSW Agriculture



Web Site Maintenance

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