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A Good Weed



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The NSW launch of Weedbuster Week at Wagga Wagga on 12 October 1999. (L to R) Local Member Daryl Maguire, Richard Graham (incoming Weed Society President), Woody, and Wagga Wagga Mayor Kevin Wales (Photo. Toni Nugent).

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GUEST EDITORIAL

A visionary and stimulating talk on weeds

This editorial was based on a
talk by Jim to the Annual
General Meeting of the Weed
Society of NSW held at Wagga
Wagga on 10th December 1999.

Jim Pratley

I was recently asked by
Richard Graham if I would give
a talk on weeds that was
stimulating and visionary -
hence the title of my talk.
However, it was a tall ask - it is
clearly not appropriate for me
to judge whether what I have to
say meets those criteria. That
is for the recipients to judge.
However, the challenge has
provided me with the impetus
to reflect on the performance of
weeds and their
scientists/managers and then to
contemplate what the future
might or should hold.

No talk on weeds should ignore
the prickly pear episode in our
weed history. An introduced
garden plant, prickly pear was
able to run rampant because
Australia was devoid of its
natural controlling agent. The
introduction of that agent, the
cactoblastis beetle, was the key
to bringing the plant under
control.

**Control - yes
Eradication - no, but we are
living with it**

Are we as weed scientists
content with that situation - is
the *status quo* permanent or is
there a risk of a breakdown?

No talk on weeds of agriculture
would be complete without
reference to the skeleton weed
episode. This weed, perhaps
more than any other factor, was
responsible for the
development of the ley farming
system in eastern Australia
when continuous and intensive
cultivation activities made
cropping unsustainable because
skeleton weed was adapted to
that system. The availability of
2, 4-D subsequently, allowed
farmers to reduce its impact at
harvest but it was not until
CSIRO (a la Richard Groves)
established that there were at
least three biotypes, and that
the major biotypes were
susceptible to rust, that
skeleton weed lost its status.
Our move to reduced tillage
systems has also helped reduce
its impact.

**Control - yes
Eradication - no, but we are
living with it**

Is this the permanent state -
what if herbicide resistance
forced agriculture back to the
cultivation basis of former
times to achieve weed control?

And what about *Echium*? Mrs
Paterson at Albury thought it
looked good for her garden and
Lady Campbell thought it nice
for her garden in WA. I don't
know who Jane was, but it
seemed she worked for the
Salvation Army in South
Australia (I made that up). A
controversial "weed", very

attractive aesthetically when flowering, but physically most unpleasant, Paterson's curse or Lady Campbell weed or Salvation Jane, perhaps even Riverina bluebell, has colonised large areas of southern Australia, its pyrrolizidine alkaloids have poisoned tens of thousands of livestock. In the drier areas farmers have depended on it for feed in dry times (how desperate are they?) whilst bee keepers swear by the quality of honey achieved from it, but does that honey contain alkaloids? It is listed as a noxious weed in places but you really would not know, given its widespread occurrence. Again, various biological control agents have been released and are perhaps having some impact, but we are not winning that war.

**Control - not really
Eradication - little prospect**

Serrated tussock continues to plague us. Malcolm Campbell (CAWSS Medallist) has spent a lifetime trying to control it yet it remains out of control. It is a WONS (Weeds of National Significance) and despite Malcolm's work we still know little of this plant. Only recently has the effort gone into biological control and, from a paper at the recent Australian Weeds Conference, we are now planting trees to counteract it. Is this an admission of defeat?

**Control - absolutely not
Eradication - not bloody likely**

And, finally, annual ryegrass - the weed that brought Australia to the attention of the world through its ability to develop

resistance to any herbicide man has been able to create. As a plant, its ability to adapt to almost any circumstances has meant that the more we know about it the more we realise we don't know.

**Control - barely
Eradication - no chance**

And so the list goes on. We have the Cuthbertsons, the Michaels, the Swains, the Lemerles, the Smiths, the Medds, the Parsons, the Aulds, etc, etc, devoting a lifetime each to the cause of weed control. We have the enormous corporations like Monsanto, Novartis, Bayer, Rhone Poulenc, Aventis, etc, and their predecessor organisations throwing billions of dollars into chemicals for weed control - almost to no avail. It might be argued that the multinationals like it that way as it sustains the bottom line - but that is a cynical and unworthy observation.

So what is the verdict? The weeds are continuing to win.

They therefore must be smarter than us. Anything that continues to demonstrate that it is smarter must be treated with respect. I really don't think we weed scientists and weed managers have given them respect and that is going to require a change in mindset. That mindset change needs to be at a fundamental level - even to our definition of a "weed" and whether we use the word at all - it is after all a derogatory word.

Our current mentality suggests that a weed is a "plant out of place". Who says? Certainly not the plant. The definition

really should read a "**plant we humans think is out of place**" or "**where we don't want it**". The plant on the other hand has seen it as an opportunity and worked on establishing itself in a new environment. Why shouldn't it? Who are we to judge whether it is in the **right** place or not?

If we take the definition to its extreme, then our wheat, canola, etc, are introduced species that have "invaded" the cropping areas of Australia. By definition they are weeds. Even if we back off a little, we have grown wheat in particular in areas totally unsuitable - it qualifies therefore as a **plant out of place**. We humans have done this deliberately and therefore are implicated in weed spread.

Our mentality suggests that a weed is a pest and pests need to be exterminated. At the same time, we spend a lot of energy trying to save plants threatened with extinction. At what point does a weed being eradicated become a threatened species? On what basis do we make the call that one species is important and another is expendable? Let's get rid of bitou bush but we need to save the Wollemi pine. We say that ryegrass in wheat is a weed but canola in the same wheat crop is a volunteer - somehow volunteer does not have the same connotation as weed - yet its impact can be just as great on the performance of the crop.

Maybe then, we need to stop seeing weeds as pests, as a threat, but rather see them as a resource that can help provide answers to the riddles of the

environment. We should see weeds for their positive contribution rather than their negative ones. We should be looking for the reasons why they become so competitively superior in environments that are not their natural habitats.

We know that introduced species generally do not come with their natural moderating agents (i.e. their support base). It makes sense to have these agents here to provide the balance. Biocontrol research is doing that but is it provided with enough resources? Beyond that though, do we know why particular plants are so competitive - are they allelopathic, do they have particular soil microflora relationships, etc?

Weeds bring an enrichment in diversity. They have characteristics which maybe could be exploited through biotechnology or maybe have "product" for commercial development.

Let's look at some examples of their magic:

- (i) *Vulpia* allelopathy - we know from An Min's work that *vulpia* residues contain toxins that inhibit the germination and establishment of its competitors. How clever is that in protecting its interests?
- (ii) Ryegrass under threat - we know from Scott Matner's work that, rather than allow companion plants to flourish, ryegrass infested with rust produces allelochemicals that inhibit, for example, white clover, whereas healthy ryegrass does not. How clever

is that in protecting its interests?

- (iii) Fumitory seed characteristics - work by Gertraud Norton has shown that seed of fumitory has an oil sac attached which prevents its germination, but attracts ants to transport it back to their nests. How clever is that, but what does it mean?
- (iv) St John's Wort - noxious weed for decades, we now discover it contains particular chemicals including hypericin which is useful in the treatment of depression. Not such a useless plant after all.

Aren't they all just so clever? Let us admire their ingenuity and work with them to achieve a better balance.

In managing weeds, there are important principles to consider:

- if we don't like the plant, don't introduce it. Knock it back when it applies for a visa.
Attention: AQIS

- if we have it here and aren't sure whether we like it, let's put it on parole. However, we need to monitor its location and we now have new technology such as remote sensing that ensures it is on the electoral role.

Attention: State agencies, land managers, researchers

- if it is considered undesirable then let's prevent its spread. Take it off the dole
Attention: - nurseries, seed growers and sellers, farmer buyers e.g. HR

- don't let it monopolise. This is contrary to Government

Competition Policy. Introduce competitors.

Attention: farmers, 'noxious' weed officers

The future is not about blasting weeds with chemicals like we do now. We will have to be smarter and employ options of weed management that are non-threatening to the weed or the environment. It is being done with heliothis in cotton - why not weeds in wheat? Are diseased weeds in a crop at low level better than no weeds at all? Why do our agronomists and plant breeders insist on weed-free conditions to evaluate treatments? Do we have to blast our crops with chemicals to achieve good yields and convert susceptible "weeds" into resistant monsters?

I challenge all weed researchers here to look beyond the first layer of understanding. I urge all weed managers to be more observant in their daily endeavours to help unlock the secrets. Try to look at the positive, admiring the skill, rather than the negative, seeing the pest. Maybe if we look through rose coloured glasses we might, just might, stumble across the answers we have been unable to grasp in the past.

Is it beyond belief that Weed Buster Week becomes Weed Care Week? The CRC for Weed Management Systems becomes the new CRC for Sustainable Weed Production and Woody becomes Australia's first President?

Weeds have provided us with many jobs for which we should

be grateful. They have provided me with some professional credibility until now.

Ladies and Gentlemen, my intellectual battery is now flat, my creativity fuse has now blown and my visionary elastic band has now perished. I am now professionally exposed and will retire gracefully.

Jim Pratley
Charles Sturt University
Wagga Wagga

TECHNICAL REPORTS

Serrated tussock management - post Frenock

Birgitte Verbeek

With the demise of the herbicide Frenock for control of serrated tussock in 1998, NSW Agriculture prepared and submitted a Permit for the use of glyphosate for serrated tussock control. This permit allows use of 6 - 15L/ha glyphosate 360 for boom spraying application and equivalent rates of other formulations. The reason for such high rate recommendations was due to past data showing variable results to both rate of application, location and soil fertility aspects. In order to gather more information on efficacy of glyphosate on serrated tussock a series of trials were conducted over a number of sites in Spring of 1998.

These trials were located at Michelago, Bredbo and Gunning covering a range of rainfall and soil types and were located in thick infestations of serrated tussock. Trials were established and are being maintained by NSW Agriculture personnel Birgitte Verbeek, Linda Ayres, Fiona Leech, Barney Milne, Rob Gorham, John Booth and Jim Dellow.

Two trials were conducted at each site:

Trial 1: Evaluate different glyphosate formulations (Roundup

Biactive®, Roundup CT Extra® and Touchdown Broadacre Herbicide®) for control of serrated tussock. Roundup Biactive applied at 4, 6, 8, 10 and 15 L/ha with equivalent rates of active ingredient of other products.

Trial 2: Evaluate addition of different surfactants (Hasten, Wetter TX and SprayPlus) to Roundup CT Extra (at 2, 3, 4 & 5 L/ha).

Final assessments have only recently been completed, and at all sites all treatments have given over 99% control with the exception of 4L/ha of Roundup Biactive at Bredbo where 89% control was achieved. Following these initial excellent results, further trials were established in April 1999, at the same locations and an additional site at Maffra. Rates of 1, 1.5, 2, 3, 4 and 5 L/ha of Roundup CT Extra were applied with the addition of different surfactants (Wetter TX, Hasten and SprayPlus).

Final results for April applications will not be available for some months but all rates have stopped the serrated tussock from setting seed this spring. Using serrated tussock brownout as an indication of kill, it appears that rates of 1.5L/ha and greater have achieved good control except at Maffra where a slightly higher rate of 2L/ha was required for equal levels of brownout.

Data collected from these trials will be used to update the current permit allowing lower rates of glyphosate use for serrated tussock control.

One major disadvantage of using a non-selective herbicide such as glyphosate to control serrated tussock is its potential effect on non-target species. However data collected from these trials on species occurrence both before and after glyphosate application suggests that careful timing of application may enable the survival of background pasture species in serrated tussock infested areas. Further trials will be conducted in 2000 to identify glyphosate use in native, annual and perennial pasture systems with emphasis on killing serrated tussock with glyphosate while retaining as much of the background population as possible.

Birgitte Verbeek
Agricultural Research Institute
Wagga Wagga

Future of Frenock

Malcolm Campbell

In October 1998 we were advised by Crop Care Aust P/L that "we would have to do without Frenock" because, amongst a number of reasons, the company that made the herbicide in Japan, Daikin P/L, was ceasing production.

Since then there has been a concerted effort by a number of State and Federal government agencies, local government, private companies and producer groups to investigate the possibility of returning the herbicide for use for the control of serrated tussock, African lovegrass, Giant Parramatta grass, Chilean needle grass and Giant Ratstail grass.

As at January 2000 the results of these efforts are that a number of possible options look for the return of flupropanate the active constituent of Frenock. Flupropanate could be formulated into one or more new herbicides that will do the same job as Frenock.

There is the possibility that flupropanate will be made in Australia. A number of batches have been made, the first batches were disappointing but latter batches appear to be flupropanate. The most optimistic forecast from this operation is that a herbicide containing flupropanate could be available in 2000.

There is the possibility that flupropanate could be made in Asia. Samples of flupropanate

are being obtained and the best forecast is that a herbicide containing flupropanate could be available soon and that it could be the same price as Frenock.

There is the possibility that flupropanate could be obtained from USA. This flupropanate is used in medical procedures in humans and has over 99% active ingredient. However it is very costly (\$140/kg a. i.). Negotiations have greatly reduced the initial price to the extent that the product would cost about \$60/L based on the same percentage active ingredient as Frenock. Arrangements are under way to get a distributor for this flupropanate.

There is the possibility that flupropanate could be made by new chemistry in NSW. The result of this process would yield flupropanate with no impurities that would be registered with little difficulty.

In all the above possibilities registration of the herbicide containing flupropanate will have to be implemented by NRA. Registration can be achieved if the herbicide contains no harmful by-products produced in the manufacture of flupropanate.

Thus it is possible that one or more herbicides containing flupropanate may be produced by the end of 1999 but their availability for use will depend on gaining registration.

*Dr M H Campbell
NSW Agriculture
Orange Agricultural Institute*

Press reports linking glyphosate exposure with cancer

Mark Scott

Reports have appeared in the press linking glyphosate to Non-Hodgkins Lymphoma (NHL), a cancer of the lymph glands where damage to the immune system is an established risk factor. The source of the reports is a recently published Swedish study in the journal of the American Cancer Society, *Cancer*. The study compared people positively diagnosed with NHL with controls, i.e. no NHL, from the general population matched for age and geographical location. The study looked at the possibility of herbicide exposure as a causative agent. The reason herbicides were singled out is that the carcinogen dioxin contaminated 2,4,5-T (now banned) during the process of manufacture. For this reason other chlorophenoxy herbicides, i.e. 2,4-D and MCPA, have also come under suspicion.

Only two statistically significant risk factors for herbicide exposure and NHL were established: one for MCPA and another for all chlorophenoxy herbicides (i.e. undifferentiated). The most that can be concluded is that there is a POSSIBLE causal connection between chlorophenoxy herbicides which was well known before the study was published (due to 2,4,5-T exposure), and the individual herbicide for which the strongest statistical

evidence exists is MCPA but this is qualified by the small numbers involved (12 with NHL and 11 disease free in a study population of 1145).

There was NO statistically significant risk associated with glyphosate exposure. In fact, there were only 7 people (4 cases, 3 controls) out of the 1145 enrolled in the study who reported glyphosate exposure. The authors caution that 'due to low numbers of exposed subjects in some of the categories, definite conclusions cannot be drawn for separate chemicals, such as MCPA and glyphosate'. In short, there were hardly any people exposed to glyphosate and exposure was not significant in terms of NHL.

A recurring problem with the reporting of studies based upon complex epidemiology and toxicology is that activist groups and the media either don't understand the science or wilfully misinterpret it, taking findings out of context and sensationalising them.

A shortened version of a longer analysis prepared for the Cotton Sub-program of NSW Agriculture by Mark Scott Agricultural Chemical Officer NSW Agriculture Orange

NEW MEMBERS

Greg Mitchell
Chris Watson
Paul Kristiansen

INVITED ARTICLE

Becoming a career weeds officer

Bryson Rees

This can be rewarding, frustrating and challenging, but is a career with potential to move plus the opportunity to better yourself in an increasingly competitive industry.

The challenge is to ensure council control procedures and management systems comply with new and current practices that ensure weed control and eradication is continual and successful; to carry out property inspections in cooperation with owners and other control authorities; and develop council policies in accordance with the current Noxious Weeds Acts changing procedures.

Judgement and Problem Solving

Problems are solved by examination and analysis of readily obtained information and the selection of an appropriate solution from a number of options.

Judgements and interpretations are based on this information. The officer will review, improve and develop methods and techniques.

Interpersonal Skills

This job requires written communication skills to write

standard reports following prescribed forms.

The job has high visibility with customers (landholders) usually away from council premises.

This job requires communication skills which enable the job to perform the following activities:

- exchange/explain information
- advise, recommend or counsel
- negotiate agreements
- participate in meetings/group discussions/demonstrations of control techniques.

The job is required to interact with the groups or individuals within the council on a regular basis, for example:

- provide or obtain information for elected members (councillors) and departmental/divisional heads and
- provide advice or recommendations to section managers, line managers and other council employees. This includes reporting on weed control activities being undertaken and planned.

The job is also required to interact with groups or individuals outside the council providing information to:-

- commercial/industrial/development representatives (e.g. vendors, builders)
- professional/industry associations including unions
- consultants, solicitors and other professionals
- applicants for employment
- members of courts or tribunals
- members of parliament
- media

In addition reports on activities are made available to:

- government department eg. NSW of Agriculture
- Landcare
- members of the public/residents
- community organisations, service clubs etc.
- employees of other councils
- local business

Skills in negotiating agreements are called upon to ensure effective weed control is employed on lands under the control of various government departments and authorities, and government and private landowners/occupiers.

Specialist Knowledge and Skills

In-depth specialist knowledge with a high level of demonstrated competency is required in the following areas:

- Noxious Weeds Act 1993
- noxious plant control and weed control plans
- plant identification
- herbicide spraying
- pasture improvement
- Occupational Health & Safety (Hazardous Substances) Regulation 1996
- chemical use

In addition, the job requires a thorough understanding and competence in the following knowledge areas in order to solve day to day problems:

- traffic control plans
- budget administration
- data entry
- general truck driving
- infringement notices
- local government legislation

- operate office machinery
- PC applications software
- preparing and giving evidence
- purchasing and procurement
- quantity calculation and estimating
- record keeping
- small plant operation

These varied skills keep the work, challenging, interesting (even at times exciting) but mostly rewarding. Great satisfaction is achieved when weedy areas can be returned to productive land.

While wages vary from council to council across NSW, training has now taken a front seat and it is hoped that this will lead to a uniform wage structure in the future.

*Bryson Rees
District Weeds Officer
President NSW Weeds
Officers' Association
PO Box 62
Wellington NSW*

LETTERS TO THE EDITOR

Dear Leon,
Would you kindly pass on my thanks to the President, your committee and members, my grateful thanks on the award of Honorary Life membership of the Weed Society of NSW. Jim and Robin Swain paid us a visit last Saturday and I was duly presented with the Award, attractively set in a very appropriate frame. Naturally this award brings back many memories of my association and friendship I have experienced over the years. On the founding of the Society we set the organisation and

objectives, which kindred weed societies have followed.

In reflection, there are many activities of our Societies, which have impacted on the regional, national and international scene. These impacts have been made possible in a number of areas such as;

1. Creation of Weed Science courses at Universities and Colleges, developed initially by Peter Michael.
2. Establishment of CAWSS and its major role in organising conferences, both national and international.
3. The proceedings of these conferences contributed to the history and development of Weed Science and its application.
4. The wide blend of our membership with such diversification of interest, covering a wide range of disciplines and activities. This has been the basis of so many friendships and communication amongst our members.
5. The weeds themselves - it was Dr Milton Moore at the Canberra Conference, introducing us to the concept of the Science of Weed Ecology - "a weed is a plant growing in a useful plants space". Milton can quite rightly claim the principle of Weed Management and the strategy of "Integrated Weed Management".
6. The Weed Society has been very important to members like myself engaged in the Agrochemical Industry. The development of selective herbicides, the

strategies of their use, minimum tillage, use of mixtures and now the resistance story are items of regular interest and comment by our members.

7. At Government and policy level our Weed Societies have been prominent and might I suggest this influence can be much expanded. Our colleagues in government administration, research, extension and legislation have an increasing role as CRC, National Weed Strategies, Quarantine, Conservation and Sustainable Agriculture and Environment (all are concerned) as weeds continue their challenge.

Members, I am so honoured to receive this award. Margaret and my family pass on their thanks as well. We are well established under delightful settings here at Kenilworth, where all needs at our stage of life are available. We have been somewhat restricted in some of our normal activities recently, because of some health problems. It was great to have a chat with Jim and Robin Swain and to hear a report on the Hobart Conference. With kind regards to all and again I am thrilled.

Good Weeding

Nelson Johnson
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An update from Graham Harding

A grant of \$109,000 from the State Government to help fund a collaborative control program on the south coast, Wollongong to the Victorian border has seen the employment of an environmental coordinator to develop a strategic plan for the six council areas involved. This full time coordinator will be employed to work with community groups, councils and government agencies. This is the first of (hopefully) a three year program. The first meeting of a "core" group was recently held at Moruya.

Further workshops will involve the broader community in each of the four regions to develop local action plans, and an extensive community education and awareness program will be put in place. Emphasis is being placed on lantana to prevent the possibility of this weed invading the niche that may be left when bitou is removed. The south coast plan will be prepared in conjunction with a similar project on the north coast.

A State plan for control of bitou will then be developed. This information will assist the development of a National Plan as bitou and lantana have been nominated as Weeds Of National Significance. One of the aims of developing a National Plan is to draw financial support from the Federal Government National Heritage Trust.

Best wishes
Grahame Harding.

WEB SITE

Our web site has now been updated and modernised. You will see a page with photographs about the activities at Wagga Wagga during Weed Buster Week. Also the "A Good Weed" section has been updated and some photographs of Paterson's Curse added to the Noxious Weeds Around Sydney section. Please let me know what you think. We are currently getting on average a total of 300 page hits per month, which probably amounts to 30 to 50 people visiting the site per month assuming they each look at 6 to 10 pages on the site.

Leon Smith

SUBSCRIPTIONS NOW DUE

Members are reminded that subscriptions are now due. The Treasurer will be sending out renewal notices shortly.

Address to send subscriptions:
Mr Alec McLennan, 8 Stringy
Bark Close, Westleigh NSW
2120

CONFERENCE REPORT

12th Australian Weeds Conference

Bob Trounce

The twelfth Australian Weeds Conference held in mid September 1999 brought

together over 300 delegates from across, and outside Australia, working in all facets of weed management. The conference venue, Wrest Point Convention Centre, Hobart, provided all necessary ingredients for a very informative, enjoyable and overall successful event. Facilities at the venue were excellent with other accommodation, sustenance and entertainment available nearby.

The 200 papers and posters presented covered every aspect of weed management from "hands on" control using brute force and herbicides, ecological management by grazing, mulching, biological control and education at professional and community levels.

The keynote address on the first day was given by Assoc. Prof. Rick Roush, Director of CRC for Weed Management Systems, who presented two view points of weed control in the 21st century. It was felt that most advances would be made with weeds in crops, and where increasing crop competitiveness, bioherbicides and computerised DSS would play a major role.

The keynote address on the second day was presented by Alex Avery, Director of Research and Education at the Center for Global Food Issues, Hudson Institute, Indiana. The address concentrated on ecological sustainability, introducing weed control initially as the result of the need to increase farming productivity and culminating in wildlife conservation. In the process Alex suggested the

weed control revolution passed through such areas as no-till farming or conservation tillage. Though not supplying any new techniques for managing weeds, the address certainly gave delegates some discussion points over morning tea.

The CAWSS Oration was given by Prof. Jonathan Gressel, President of the International Weed Science Society on New Paradigms of Weed Control. This talk addressed the potential of herbicide resistant crops and weed biocontrol, and the need to design fail-safe procedures rather than banning, or ignoring the risks of bio-technology. A feature of the conference was a series of workshops on a range of topics including wide ranging discussions on the costs/benefits of biological control, the need to take a longer term view in managing weed problems; and preventative rather than a curative approach to pasture management.

For some delegates, highlights of the conference were Weedbuster activities organised by the National Weedbuster Coordinator, Salvo Vitelli. As many delegates were arriving for the conference on Sunday 12th, Salvo had arranged for seven Alien Woody Weeds to infiltrate the country via Hobart Airport, only to be "sniffed out" by Andy the AQIS sniffer dog. This theme was carried through to the conference session on Thursday morning when Jane Edmanson (of Gardening Australia) officially launched the 1999 Weedbuster Week Campaign. The rampant

Woody Weeds appeared behind bars in the corner of the auditorium for the most of the session being guarded by 3 motley caper cops aided by a class of students from the local primary school. Just prior to Jane announcing the launch, there was a break out and all weeds escaped, two returning tethered with bridal creeper allowing Jane to symbolically cut the creeper.

An other important issue addressed at the conference was the impact of The National Weed Strategy on weed management in Australia which was presented by John Thorpe. In his talk, John outlined the principles and key issues being addressed by the NWS, the criteria for taking action, and what has been achievements so far by NWS.

The Conference also gave the usual opportunities to catch up with colleagues (old and new) and to view some of the local weed problems and control techniques during the field trip. A night boat trip to Government House, to be the guests of the Governor and Lady Gray was an opportunity taken up by many delegates and allowed some unwinding after many hours of lectures.

As with most conferences, not all sessions suited everybody, there was considerable information transfer and many delegates will be enthusiastic about attending the 13th Conference being planned for Perth, WA. sometime in 2003.

*Bob Trounce
Weeds Agronomist
NSW Agriculture, Orange*



12th AUSTRALIAN WEEDS CONFERENCE, HOBART

Photos clockwise from top left (page - 11). West Point Casino & Conference Centre - conference venue. Section of audience in main auditorium. Dr Ros Shepherd hands over the presidency of CAWSS to Dr Bruce Wilson. Jane Edmanson (Gardening Australia) ceremonially cutting the bridle creeper to launch Weedbuster Week. Jane Edmanson promoting Weedbuster in her talk. Presentation of the CAWSS Medal to Dennis Morris (Tasmania) by Ros Shepherd (President of CAWSS) for outstanding contribution to leadership in weed science. Professor Johnny Gressel, President of the International Weed Science Society giving the CAWSS Oration. The Weedbuster launch involved some lighthearted comedy when the Nation's seven Woody Weeds were jailed.

THE WEED SOCIETY OF NEW SOUTH WALES INC.

President's Annual Report - 1999

Perhaps the most important happening this year is that Honorary Life membership of the Society has been conferred on Nelson Johnson. Nelson was instrumental in forming the Society in 1966 and was the inaugural president. He has been an active member of the Society for over 30 years.

The Riverina Branch continues to prosper and is running very successful dinner/seminar meetings about every two months. Approximately forty to fifty members attend these meetings on a regular basis. Seminars have been held on, bush regeneration, herbicide resistant crops, wild radish management, biological control of weeds etc. The branch has also arranged other successful activities, including displays at shopping centres, an environmental and urban weeds walk and participated in several field days. This year the Riverina Branch hosted the Annual General meeting of the Society, held on Tuesday, October 12 in Wagga Wagga. The State launch of Weed Buster Week was also held at Wagga Wagga on the same day. This was followed by a BBQ lunch a river cruise to inspect weeds of Murrumbidgee River plus the Annual Dinner at the Manor House. Congratulations are in order for the officers of the

Branch.

During the year, three new newsletter editors, Peter Dowling, Jim Dellow and Bob Trounce from Orange Agricultural Institute, Orange, took over from Brian Sindel. Brian must be congratulated for the sterling job he did for many years editing and arranging publication of the newsletter 'A Good Weed'. The first newsletter from the new editors continues the standard of previous issues. A Weed Society web site on the Internet was established and an activities page plus additions to the links page was added during the year. A request to use one of the web site photographs by WHO, Denmark was received along with many other queries. Travel Study Grants were awarded to Ric Cother (\$1000), Orange Agricultural Institute to assist his attendance at the Tenth International Symposium on Biological Control of Weeds at Bozeman, USA and Mark Gardener (\$500), Charles Darwin Research Institute, Galapagos Islands to assist his attendance at the 12th Australian Weed Conference, Hobart. The Society also sponsored the Weed Identification Competition at the Biennial Noxious Weeds Conference, Ballina, where it also had a display to promote the Society.

Seminars were given in Sydney by visiting overseas speakers Prof Jonathan Gressel, Israel and Mark Gardener, Galapagos Islands in September. Despite the interesting topics and high calibre guest speakers, attendance at these two seminars was very disappointing and the Society lost over \$300 on these

two functions. Weed Society student prizes (\$100) were awarded to Alison Fattore, Charles Sturt University and Mark Trotter, University of New England.

The Society continues to be run by a small band of dedicated committee members and there is a need for new blood (younger members) to keep the Society going. Twenty-five new members joined the Society during the year, four using the web site application form for the first time. Over thirty people were culled from the membership list for being two years or more behind with dues. Membership fees were increased during the year (from \$20 to \$30), but to offset this a three year prepayment system for \$80 was offered. Leon Smith retired as CAWSS delegate for the Society after 16 years on the committee and was replaced by Richard Graham. At the 12th Australian Weeds Conference in Hobart in September, the Society presented its deliberations on a SWOT analysis of the future directions of CAWSS.

NEW SPONSORS

The Society has been successful in obtaining two new sponsors for the newsletter - Luhrmann Environment and - Novartis. These sponsors join Dow Agro Sciences, and their logos and acknowledgment appear on the back page of the newsletter. The Society is grateful for their support and looks forward to a mutually happy association in the future.

TRAVEL STUDY GRANTS

Travel Study Grants, funded by the Weed Society, are now available to financially assist individuals to attend conferences or to travel on specific interstate or overseas study tours. Grants are for the period from 30 September 1999 to 1 June 2001 and must be taken up during the stated period. The grant is open to persons over 18 years of age who are involved with weed research, extension, regulation or practice. Studies of limited interest to the Society will not be considered.

Applications will only be considered from persons who reside in NSW or the ACT. Members of the Society may be given preference. Rarely will the grant meet the full expenses of travel so applicants must arrange additional funds from other sources. Applicants attending conferences are expected to contribute to the conference. Payment of grants would be made in June/July 2000.

Grantees are expected to return to service within NSW. They will be required to submit a succinct written report for publication in this newsletter soon after returning to duty and/or pass on results of the assignment to other workers in an appropriate manner, e.g. seminar or meeting.

Applications are to be forwarded as soon as possible, but no later than 31 March 2000 to: The Secretary, The Weed Society of New South

Wales Inc., PO Box 438,
Wahroonga 2076.

Application forms are available from the Secretary at the above address or by telephoning Leon Smith (02) 4739 3564.



'GOOD READS'

OTHER

Weed Navigator.

Have all the resources and contracts you need for environmental and agricultural weeds in Australia and New Zealand at your fingertips with the *Weed Navigator*. The *Weed Navigator* is your first point of call to find your way around the weed world in Australia and New Zealand. With over 3000 entries, it is the most comprehensive weed contact and information guide in Australia. \$30 (includes postage and handling).

Contact: Cooperative Research Centre for Weed Management Systems (CRCWMS) Ph 08 8308 6590, Fax 08 8303 7125 email crcweeds@waite.adelaide.edu.au

Winning the War on Weeds. The Essential Gardener's Guide to Weed Identification and Control.

Mark A Wolff, 1999, 112 pp., soft cover, Kangaroo Press, ISBN 0 864179936 \$24.95.

Australian Journal of Environmental Management.

Published by the Environment Institute of Australia, GPO Box 211D, Melbourne Vic, 3001 Ph: 03 9654 7473, Fax: 03 9650 1242. Invasive Species Special - Volume 5, Number 3, September 1999.

12th Australian Weeds Conference Papers and Proceeding. Weed Management into the 21st Century: do we know where we're going?

Edited by A.C. Bishop, M. Boersma and C.D. Barnes, 686 pp., softcover, \$60 + \$10 postage from Conference Design, PO Box 342, Sandy Bay, Tas. 7006, email: mail@design.com.au

Weed Management. Tools for an Integrated Approach.

Wendy Bedggood, Victorian Institute for Dryland Agriculture, Agriculture Victoria, Horsham, 1998. 86 pp. Softcover, A4 size. \$12.50 including postage and handling from VIDA, Private Bag 260, Natimuk Road., Horsham, 2401, ph 03 53622111, fax 53622187.

Managing Wild oats (*Avena spp.*).

Toni Nugent, Andrew Storrie and Richard Medd, CRC for Weed Management Systems and Grains Research and Development Corporation, 1999. 28 pp, \$10. ISBN 11875477 438. Available from the Weeds CRC, ph (08) 8303 6590 or the Publications Officer, GRDC, ph (02) 6272 5525.

Precision Weed Management in Crops and Pastures.

Edited by R W Medd and J E Pratley, 160 pages, paperback,

ISBN 086396 650 0, price \$A40.00. CRC for Weed Management Systems, Waite Campus, University of Adelaide PMB 1, Glen Osmond SA 5064, Australia. Phone: 08 8303 6590 Fax: 08 8303 7125 Email: crcweeds@waite.adelaide.edu.au

The Paterson's Curse Management Handbook. The Ragwort Management Handbook. The Blackberry Management Handbook.

Comprehensive information sources for integrated management of key weeds. \$10 including postage and handling - each. Special offer - Blackberry handbook free with every order of The Paterson's curse Management Handbook. Orders to Princy Kroon, KTRI, PO Box 48, Frankston, Vic., 3199. Phone (03) 9785 0111 Fax (03) 9785 2007. Cheques payable to Keith Turnbull Research Institute.

Australian Weed Management Systems. Edited by Brian M Sindel. Register for further information. Reply to: R G and F J Richardson, PO Box 42, Meredith, Victoria 3333. Tel/fax 03 5286 1533, Email robfiona@pipeline.com.au

Weeding Review. Ermert, S. (1998) Gardeners' Companion to Weeds: How to identify and control more than 150 common weeds and invasive plants in Australia. Landsdowne Publishing, Sydney, Australia. \$30.

COMING EVENTS

2000

June 6-11

III International Weed Science Congress

Venue: Foz do Iguassu, Brazil
Contact: PJ Eventos-Fieras e Congressos, Rua Jose Risetto, 1023-Curitiba, Parana-Brazil
CEO 82.015010
Tel/Fax: 55 41 372 1177
Email: pj@datasoft.com.br

July 10-14

6th Queensland Weed Symposium

Venue: Oasis Resort, Caloundra QLD
Contact: John Swarbrick
Tel: 07 4632 5859

2001

January 28 - February 1

10th Australian Agronomy Conference

Venue: Wrest Point Hotel Casino Convention Centre
Hobart Tasmania

February 11-15

Weed Science Society of America

Venue: Holiday Inn
4 Seasons Hotel Greensboro
NC USA

February 10-21

19th International Grassland Congress

Venue: College of Agriculture, Piracicaba, State of Sao Paulo, Brazil
Contact: ESALQ, Ave. Padua Dias 11, 13418-900 Piracicaba SP, Brazil
Ph: (55) (19) 429-4134
Fax: (55) (19) 429-4215
Email: igc2001@esalq.usp.br

2002

June 24-27

12th EWRS Symposium 2002

Venue: Wageningen, The Netherlands
Contact: EWRS Symposium 2000, c/- Organization Bureau ISA, Markweg 17, NL-6871 KW Rendum
Email: Ingrid.Sanders@wxs.nl
<http://www.ewrs.org>

July 11-12

California Conference on Biological Control II

Venue: Riverside California, USA
Contact: M Hoddle, Dept of Entomology, University of California, Riverside, California 92521, USA
Tel: 1-909-787-7292
Email: ccb2@cnas.ucr.edu
WWW: sss.isn.net/~ppb2000/

September 6-8

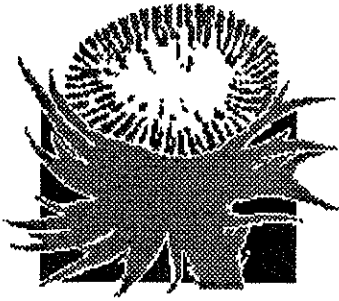
11th International Conference on Weed Biology

Venue: Dijon, France
Contact: J. Gasquez/
J.P.Lonchamp, INRA
Mailherbiologie et Agronomie,
BV 1540. 21034 Dijon Cedex,
France
Fax: +33-03.80.693262
Email:
gasquez@epoisses.enra.fr
lonchamp@epoisses.inra.fr

September 8-12

13th Australian Weeds Conference

Venue: Sheraton Perth Hotel, Perth WA
Contact: Sally Peltzer
Tel: 089892 8504
Fax: 089841 2707
email: spelzer@agric.wa.gov



Objectives of the Weed Society of NSW

- 1. To ensure that those interested in weeds and their control are able to meet, to exchange their knowledge and experiences, and to learn of new developments and research.**

This will be achieved by

- (a) organising meetings/workshops/seminars, held at both urban and rural locations
- (b) publishing a newsletter containing the latest information on weeds in NSW and the rest of Australia
- (c) forming regional groups to ensure interaction at local level
- (d) providing funds for members to travel to increase their knowledge
- (e) circulating a list of members' details within the Society
- (f) organising Australian Weed Conferences on behalf of CAWSS

- 2. To increase the general public and policy makers awareness of the effects of weeds and their control**

This will be achieved by

- (a) mounting and sponsoring displays, as a Society or in collaboration with others, at public events
- (b) organising and participating in talks in areas/topics in which weeds or weed control are an issue (so that non-members can benefit from the knowledge of members)
- (c) promoting/encouraging the development and publication of educational material
- (d) encouraging members to participate in teaching at secondary and tertiary education level

- 3. To represent the interests of members at State and National levels through full involvement in CAWSS and other organisations.**

This will be achieved by

- (a) informing other organisations and individuals of the existence, activities and aims of the Society
- (b) providing CAWSS delegates
- (c) responding to requests from CAWSS for advice and assistance
- (d) when considered relevant to the Society, providing input into formulation of policy at a State level

A Good Weed

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

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Bayes logo



Luhrmann Environment Management Pty Ltd

The Weed Society acknowledges the generous support of Dow AgroSciences Aust Ltd, Frenchs Forest, Luhrmann Environment Management Pty Ltd, Pennant Hills and Novartis, Pendle Hill, for their sponsorship of

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