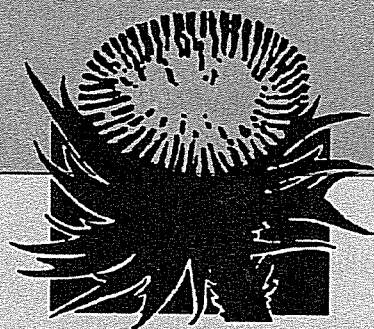


A Good Weed



the NEWSLETTER of
The Weed Society of New South Wales Inc
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APRIL 1997

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AQIS Endorses New Weed Risk Assessment System

The Australian Quarantine Inspection Service (AQIS) has endorsed a new method for assessing the weed potential of plants which has been developed by Paul Pheloung. If it is adopted on a nationwide basis it will then be the primary tool for assessing plants proposed for introduction into Australia.

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John Toth
Bob Trounce

Editor: Brian Sindel
Department of Agronomy
and Soil Science,
University of New
England, Armidale 2351
Ph: (067) 733 747
Fax: (067) 733 238 Email:
bsindel@metz.une.edu.au

Secretary: Leon Smith
8 Darwin Drive,
Lapstone 2773
Ph/fax: (047) 393 564

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... AQIS Endorses New Weed Risk Assessment System

The Australian Quarantine Inspection Service (AQIS) has endorsed a new method for assessing the weed potential of plants developed by Paul Pheloung, formerly with Agriculture Western Australia and now with AQIS's Northern Australia Quarantine Strategy (NAQS) Scientific section.

Paul's Weed Risk Assessment (WRA) system has also been approved by a committee representing the heads of State and Federal departments of agriculture and resource management. AQIS and the Australian Nature Conservation Agency (ANCA), the other Commonwealth agency with an interest in the regulation of imported plants, will be releasing the system for industry and government agency comment.

The WRA system may be 'fine-tuned' after the completion of the current consultation: if it is adopted on a nationwide basis it will then be the primary tool for assessing plants proposed for introduction into Australia.

AQIS is required to maintain a plant quarantine policy consistent with the International Plant Protection Convention and the World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement).

These international obligations generally mean only plants that do not occur in Australia and which are assessed to be economic pests can be prohibited from importation. However, if a plant already occurs in Australia there may be grounds for AQIS to prohibit further imports if the species is of limited distribution and is being officially

controlled throughout its distribution, so that the risk of further spread within Australia is minimised.

The SPS Agreement requires that the assessment of species must be transparent and based on sound scientific principles. The WRA system - which is both transparent and scientifically sound - generates a numerical score based on 49 questions about the species being assessed and its close relatives.

The questions (almost all of which can be answered 'yes', 'no' or 'don't know') are divided into three main sections covering biogeography, undesirable attributes and biology/ecology. There is a minimum number of questions for each of the three sections, and both weedy and non-weedy (beneficial) traits are taken into account. The final numerical score determines the outcome: accept, reject or evaluate further.

To facilitate the process of assessment, much of the information will be requested from the importer either by forwarding documentation or by answering a questionnaire supplied with import permits.

It will also be possible for importers with the necessary expertise to conduct an assessment using the scheme before lodging an import permit.

AQIS has circulated the WRA system to relevant peak bodies for comment; a report on the WRA system is also available on the Internet at:

<http://www.agric.wa.gov.au/weeds/Weedsci.htm>

(Reprinted from *AQIS Bulletin*, Vol 9, No. 11, 1996. Further information can be obtained from Craig Walton (06) 272 5564.) □

Later in this issue
**Weed Management in
the Urban Jungle**

Conference



The Gardener Report - Chilean needle grass (*Nassella neesiana*) as a pasture in Argentina

By Mark Gardener, Wal Whalley and Brian Sindel

In 1996, Mark Gardener visited Argentina as part of his PhD studies at the University of New England to examine the usefulness and ecology of Chilean needle grass (*Nassella neesiana*) as a pasture species. His trip was in part funded by a Weed Society Travel Grant and so in this article, he and his two supervisors report on his findings. For anyone interested, a more detailed report is available from Mark at the Department of Botany, University of New England, Armidale, NSW 2351, phone (067) 73 2798 fax (067)73 3283 email mgardene@metz.une.edu.au

Introduction

Nassella neesiana (synonymous with *Stipa neesiana*) is a native of South America and was first identified in Australia in the 1940s. Since then this grass has become naturalised in many areas that receive more than 500 mm of annual rainfall in New South Wales, Victoria and South Australia. *N. neesiana* is locally common along the Great Dividing Range and its western slopes from the Queensland border through to Victoria. It is also found in Sydney, Melbourne and to the west in the Adelaide Hills.

This widespread distribution demonstrates the suitability of the Australian environment to *N. neesiana*. The weed has invaded pasture, conservation areas and crown land. In pastures, its weed status is due to its invasive nature and its production of large amounts of unpalatable flower stalks during summer resulting in a reduction of stock carrying capacity. The sharp seeds cause vegetable contamination of wool and penetrate the hides of sheep. In conservation lands *N. neesiana* invades and out-competes native species. On roadsides it is a weed because it provides a focus and source for further dispersal.

Traditional control methods have not been successful in reducing populations or the spread of *N. neesiana* in Australia.

However, experimental results have shown that at certain times of the year this grass can produce good quality feed. Literature from South America also suggests that *N. neesiana* is a useful pasture species. Hence a management approach that looks at ways of maximising its utility as a pasture grass may be required. The specific purpose of this trip to Argentina was to gather information on the utility and ecology of *N. neesiana*.

Role of *Nassella neesiana* in Argentine animal production

Argentina carried a massive 52 million head of cattle and 18 million sheep for wool production in 1993. The most productive province is Buenos Aires (roughly the size of Victoria) supporting over 19 million cattle and 3 million sheep. This compares with the 1995 Australian herd of over 25 million cattle and 120 million sheep. Argentina will soon become a foot and mouth disease-free zone which will open the world markets to their beef.

...experimental results have shown that at certain times of the year this grass can produce good quality feed.

The core of Argentina's animal production is on the highly productive Pampas plains which cover about 16% of the country. The Pampas span from 28° to 38°S and include several Argentinian provinces, southern Brazil and western Uruguay. The Pampas are either flat or slightly undulating and generally lack drainage. Over a 500km east-west gradient the average rainfall decreases from about

950 to 400 mm. Floods periodically inundate the plain and much of the lower areas stay submerged for months. These wetter years are punctuated with prolonged dry periods.

The vegetation is dominated by grasses and herbaceous dicots with a near absence of trees. These grasslands are alternatively known as The Rio de Plata Grasslands. Poaceae is the most important family with 190 native and 40 introduced species. The best represented genera of Poaceae are *Nassella* (25 species), *Poa* (8 species) and *Piptochaetium* (8 species). Summer-growing, C⁴ genera such as *Bothriochloa*, *Panicum* and *Paspalum* are all common in pastures during the warmer months. The main problem with these native pastures is the lack of winter-green species.

Heavy grazing in spring was thought to reduce flowering and make it more palatable to stock.

Several agronomists, landholders and land managers were informally interviewed about the usefulness of *N. neesiana* in Argentina. The general consensus was that during the winter months it provided a large amount of good feed. However, they said that during the summer months when it was flowering it was only eaten when there were either drought conditions or under heavy stocking densities. Both cattle and horses were known to graze *N. neesiana* throughout the year.

Likewise, literature sources indicated that *N. neesiana* is one of the most important winter-growing native species producing good quality feed. It produces good feed in winter and spring (especially with good rain) with the crude protein content ranging from 6.3 to 18.3%. Resting the pasture in spring followed by heavy grazing in summer increases its abundance. Conversely, heavy grazing in spring was thought to reduce flowering and make it more palatable to stock.

Nassella neesiana is common in pastures and is resistant to adverse climates, regenerating well naturally. Herbarium records show that *N. neesiana*

occurs in Argentina, Southern Brazil, Uruguay and Chile between the latitudes of 26° and 40°S. It appears that *N. neesiana* is able to survive a wide range of climatic conditions from cool, wet and predominantly winter rainfall to hot, dry, summer rainfall environments.

The only negative aspect of *N. neesiana* that most South Americans agree upon is that the sharp seeds are troublesome, penetrating the hides of sheep and causing vegetable contamination in wool. For this reason it has been classified as a weed in Chile. However, on the eastern Pampas this is not a problem because there are few sheep and cattle hides are too thick for the seed to penetrate.

Comparative ecology of *N. neesiana* in Argentina and Australia

Why does *N. neesiana* occur as a dense monoculture in Australian pastures but as a component of a complex grassland in Argentina? Can key aspects of the ecology of *N. neesiana* explain differences between its behaviour in Australia and Argentina?

Except from a single core, no viable seeds were found in the soil seedbank (Table 1). This is difficult to explain. Firstly, the seeds may be harvested by one of the many granivorous ants common on the Pampas plains. Secondly, a pathogen may affect the seeds once they have fallen. Thirdly, seeds may rapidly decompose by natural processes. The paucity of seedlings may be a result of this negligible seedbank.

Table 1. Comparative aspects of the ecology of *N. neesiana* in Argentina and Australia (single and hyphenated values represent mean and range respectively).

	Argentina	Australia
Seedbank/m ²	0	1000-12000
Seedlings/m ²	0	0-200
Panicle seeds/tiller	27	38
Cleistogenes/tiller	5	5
Basal cover (%)	0-24	0-60
Tussock size (cm ²)	26	79

The absence of a seedbank cannot be explained by lack of seed production. Although the overall frequency of plants was generally low, the number of panicle seeds produced per tiller was very similar between Argentina and Australia.

Depending on the density of the plants, the number of inflorescences per m^2 varied from 0 to 200. If the number of inflorescences is multiplied by the number of seeds per inflorescence this would give a maximum potential seed production of about 8000 seeds per m^2 which is not unlike Australia.

Although overall cleistogene (hidden seeds in the stems of the flowering tillers) production was the same in both countries (Table 1), the basal cleistogenes (below ground level) were often in multiples whereas in Australia they were always singular. Cleistogenes play an important role in the reproduction of many South American grasses and if the panicle seeds are not forming a permanent seedbank they may be the primary mode of reproduction in *N. neesiana*.

Tussock size in pastures in Argentina was markedly smaller than that in Australia (Table 1). At one site the size class of tussocks was uniform. One possibility is that tussocks may be periodically killed by floods and regenerate from basal cleistogenes which are already in the soil.

N. neesiana was common on the high ground (one metre above the low ground) and adjacent slopes but did not occur in the wetter, often flooded low ground. These depressions often have salinity problems and deep clay soils. In

grazed pasture, it ranged from about one tussock per m^2 to about 15% basal cover. Its distribution was patchy in some areas without any obvious reason.

Conclusions

1) *Nassella neesiana* is a winter growing native pasture plant which plays an important role in Argentinian animal production.

2) To manage *N. neesiana* as a pasture species in Australia, its two most weedy characteristics must be overcome. The summer production of large amounts of unpalatable flower stalks and its dominance of pastures must both be reduced. One way of reducing the amount of flowers is by heavy grazing in spring during flower development which will not completely prevent flowering but will increase vegetative production and reduce the number of flower stalks. Further research on grazing management of this species in Australia is needed.

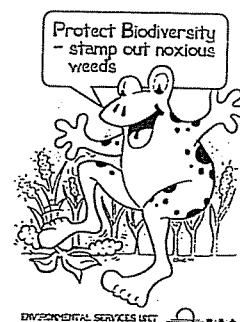
3) A key feature in the success of *N. neesiana* in Australia is its large and persistent seedbank which does not appear to be present in Argentina. This lack of a seedbank may explain its low abundance and the paucity of seedlings in pastures in Argentina. □

NSW Agriculture Changes its Approach to Weeds

NSW Agriculture has recently appointed two South Australians to change the approach to weed management in the State. Richard Carter, formally of the South Australian Department of Primary Industries, Waite Campus, has taken the position of State Weed Control Coordinator. Richard is based at the Orange Head Office of the Department and will attempt to integrate the NSW Agriculture's noxious weed, biological control, extension and demonstration units.

Richard was previously the South Australian Animal and Plant Control Commission's Senior Policy adviser and was responsible for some major changes in the approach to weed control programs in SA. Michael Michelmores comes from Port Augusta, South Australia. He joins NSW Agriculture as the Regional Noxious Weeds Coordinator based at Goulburn. In South Australia, Michael was a regional adviser for weed and vertebrate pest control programs in the semi-arid pastoral areas of SA's north. Michael introduced a strategic

Pollution Hints ☺



approach to weed management in the northern pastoral areas of SA.

NSW Agriculture has also relocated the Regional Noxious Weeds Coordinator, Peter Gorham, from Cowra to Windsor and appointed Rod Ensby as a Regional Coordinator based at Grafton. The new

team will mean NSW Agriculture is well placed to improve weed control in this State.

Richard Carter can be contacted at NSW Agriculture, Locked bag 21, Orange NSW 2800, Ph 063 913 771, Fax 063 913 605, email carterr@agric.nsw.gov.au □

Parramatta Grass Control by Selective Application of Glyphosate Using the Weedbug® System

By Caz McCallum

Between May and October 1996, *Sporobolus indicus* var. *capensis* (Parramatta grass) control in turf was examined at Wentworth Park, Glebe. This was a heavily infested location with a long-term presence of the weed. Its clumped growth habit made it an ideal target for the rotary wick wiping action of the Australian designed Weedbug® system.¹ Abrasion of

both the upper and lower leaf surfaces of a taller targeted weed allows for direct, but selective application and penetration of systemic glyphosate.

Glyphosate formulations tested were regular Roundup® and Roundup® Biactive™ (the latter was released in New South Wales in mid-1996), each at three concentrations. A total of seven treatments, including an untreated control, were applied in 20 cm wide strips (transects), 5 m long. A buffer zone of equal size separated each transect. The Gutterbug form of Weedbug® was modified for this purpose, the tractor travelling at 2km/hr, the 25 cm disc set at 4 cm height and wick rotation at 180 rpm.

Original transect counts of Parramatta grass (PG) were of those whose crown diameter was 25 mm or greater. Research had suggested smaller, less mature plants are highly susceptible to glyphosate, so reactions of established plants were considered a better test of Weedbug® efficacy.

Glyphosate was first applied on 10 May 1996. Within 5 days, the turf showed a series of straw-coloured stripes, with some plants being dead within 3 weeks. Regrowth, where it did occur, was in a horizontal plane, for at least 13 weeks. For this reason the second application date had to be postponed to 18 September, when sufficient height had been achieved by surviving PG plants. Some survivors, even then, exhibited no vertical regrowth, whereas untreated PG usually holds its foliage at an approximate angle of 60°.

¹ The Weedbug consists of polyurethane discs, with individual, centrally-located chemical tanks. Each tractor drawn disc, set by the operator at the required treatment height, is driven by its own hydraulic motor, with the rotational speed dictating the chemical flow rate. Within each disc are rope wicks (12 for the Weedbug) radiating from the central tank and circling the perimeter. As a result of the disc's rotational movement, chemicals are fed into the wicks centrifugally, which in turn wipe the chemical onto targeted vegetation. The cuticle of the plant is abraded at numerous points simultaneously. There are a number of Weedbug extensions, the Gutterbug, Slopebug and Handybug, the last a handheld version. Up to 85% less chemical is used with this system compared with conventional spraying, and due to the three-point linkage system, discs can be raised wherever desirable species are above treatment height. Discs have an outer cover surrounded by soft bump rubber which protects trees and posts during treatment. Treatment pricing varies from 1.5 cents per square metre for roadside work to 3 cents for playing fields. A Sydney based operator reported that approximately 1.5 litres of diluted chemical (3:1 or 2:1) is required to treat 1 ha of weed infested land.

Unfortunately some kikuyu grass was injured. Unusually warm weather in May and scuffed stolons from field use promoted occasional wick contact. The host turf proved particularly susceptible even to the lowest glyphosate concentration. Due to this off-target effect, a rating scale was applied to all treatments with heavy penalties for kikuyu damage and PG regrowth (e.g. seed production and rate of recovery). The quicker the reaction to a treatment and subsequent death, the higher the positive scoring. Of all 6 herbicide treatments, Roundup® Biactive (3 parts chemical to 1 part water) performed best, with limited off-target impacts and high PG kill.

Transect results, with counts based on kill and size reduction to less than 25mm, when statistically analysed, reflected the following success rates:

<u>Herbicide</u>	<u>Success Rate %</u>
Roundup® Neat	94.0
Roundup® 80%	98.3
Roundup® 75%	98.8
Roundup® Biactive™ Neat	88.5
Roundup® Biactive™ 80%	100.0
Roundup® Biactive™ 75%	99.0

While one treatment can kill plants, generally where plants are large and established there will be regrowth, especially from tiller buds in the outer crown. Small plants, too short for treatment, grow quickly when competition is reduced. The seedbank also remains to be dealt with over a long period. Interestingly, when PG plants were rapidly desiccating after being treated with herbicide, the plant's reserves seemed to be focussed on producing short, compact seed heads with minimal seed numbers, or completing the maturation process where a scape was already present.

Scanning electron microscope examination of treated PG blades showed ruptured horizontal bands of patterned wax platelets about stomata, on both upper and lower surfaces. Abrasion meant that the membrane beneath the cuticle was readily exposed to a glyphosate solution, allowing absorption and translocation to follow. The cuticle was much more dense on the upper epidermis, so the lower surface is probably the better site for herbicide penetration.

Ideally Weedbug® application of glyphosate to PG would be:

- a day or two after soaking rain or irrigation;
- when the host turfgrass is clearly shorter than the target;
- on a humid or cloudy day, to avoid desiccation; and
- when the weed is actively growing.

It is concluded that since this research indicated as its worst result an 88.5% success rate, use of the Weedbug® system as a control method for Parramatta grass has good potential. However, because each application kills or weakens parent plants and clears the way for new generations of the weed, it must be viewed as part of a long-term process, where it is one tool in a carefully monitored management program. Application timing and frequency must be in response to specific location features and degree of infestation, while overseeding, fertilisation, cultivation and irrigation may need to be part of the control process. This system also has application possibilities in Giant Parramatta grass control, but only if viewed as one vital element of long-term management programs.

This research was part of the requirements for a Master's Degree in Agriculture (Turf Management) at Sydney University by Caz McCallum. □

A double swing arm Weedbug® machine being used for roadside maintenance in the Brisbane metropolitan area. Ⓢ



Novartis on Parade with Cadence

Novartis is set to launch its first new product since the company was formed from an amalgamation of the agricultural businesses of Ciba and Sandoz.

The new product will be named 'Cadence' and is expected to be commercialised with limited quantities available in time for winter 1997 (pending registration approval).

The following information is given to assist those wishing to trial the new product.

Cadence is a dry-flowable, broadleaf herbicide for early post emergence weed control in cereals. The active ingredient is the sodium salt of dicamba present at a rate of 700 g active ingredient/kg. Cadence is a Group I herbicide (a benzoic acid). Used at a rate of 115 or 200 g of formulated product per ha, Cadence will be used either alone or in mixes with products such as Ally® or Eclipse®. Used in a mix, Cadence has excellent action on a broad spectrum of weeds, including several difficult to control weeds such as wireweed, volunteer legumes (peas), sorrel, doublegee (spiny emex), climbing buckwheat and thistles.

Cadence has the advantage of high level efficacy on some difficult to control weeds, and the crop selectivity to enable use as early as the 3 leaf growth stage of the crop. It has very low volatility. Cadence also provides a high potency non Group B herbicide for control of broadleaf weeds. Thus it has a potentially important place as a rotational product to slow the development of resistance in broadleaf weeds to Group B herbicides.

Novartis trials indicate that a mix of Cadence (115 g) + Ally (5g) has a very broad weed spectrum, including weeds such as: prickly lettuce, tree hogweed, emex, wireweed, deadnettle, stagger weed, Indian hedge mustard, turnip weed, wild turnip, amsinckia, sorrel, sowthistle, charlock, chickweed, rough poppy, shepherds purse, climbing buckwheat, New Zealand spinach and volunteer legumes.

In addition to Ally and Eclipse, Cadence is also compatible with Igran, Logran, Amber-Post, Glean, 2,4-D amine, 2,4-D ester, MCPA and diuron.

There are no re-cropping restrictions following the use of Cadence alone.

Product manager Mr Steve Manoel said that he is hopeful of regulatory approval to allow Cadence to be sold this year. Anyone wishing to evaluate the new product should contact Novartis for more detailed technical information and updated detail of availability and registration.



'Weed Killer Hope for Cancer Patients'

This was the headline for an article from the Sydney Morning Herald on 4 March 1997 written by David Brown for the Telegraph in London. Excerpts of the story are reprinted here because of the interesting angle that it takes.

The world's biggest-selling weed killer could become a new treatment for cancer and AIDS, scientists say.

Proctor and Gamble of Cincinnati, the \$45 billion a year US giant, has applied for an international patent for pills, powders and liquid drugs containing the weed killer Roundup, which is manufactured by a rival.

The weed killer's main chemical, it claims, is a safer way of knocking out breast cancer cells because it causes less damage to healthy tissue in the human body than existing chemotherapy treatments. It is also effective against lung cancer and cancer of the colon and leukemia, researchers say.

Proctor and Gamble, America's 17th-largest company, was revealing few details about its work with Roundup to cure a range of fatal illnesses in people and animals. It would also not be drawn on any plans for a joint venture with Monsanto to develop the weed killer in a variety of medicines.

Executives were at pains to say nothing which would give away trade secrets to its competitors in the cut-throat world of the pharmaceutical industry, where patenting and bringing a new

product to market can cost millions of dollars.

Mr Terry Loftus, a spokesman, said: 'I am not at liberty to discuss any details, for competitive reasons, and it's too early to speculate on what these patent applications may mean for the future.'

But the company confirmed it had applied in the US for an international patent for a composition containing the weed killer 'that is effective in inhibiting the growth of tumours and cancers in mammals with mild or no effects on normal cells'.

The application proposes using Roundup in low doses in pills, powders, pessaries or injections to treat 'all types of cancers or neoplasm or tumours found in mammals, including leukemia'.

Young Weed Scientist Travel Award



The Council of Australian Weed Science Societies (CAWSS) will make an annual travel award available for a young Australian weed scientist.

Applications are invited from young weed scientists to attend national or international conferences or for specific overseas study tours of a short duration. The applications are to be submitted annually to CAWSS by affiliated societies. The Young Weed Scientist Travel Award will be made by 1 July each year for the following 12 months. While in most years applications must be to the Secretary or Treasurer of CAWSS by 1 May, applications for 1997 will be accepted up until 30 August 1997.

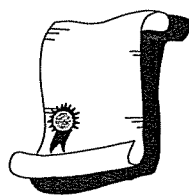
The Award will be made to undergraduates studying in the fields of agriculture, biology, ecology, horticulture and forestry or related subjects, who have a wish to continue their studies in weed science. It will also be made to young weed scientists who have recently (within five years of finishing their degree) commenced employment in any branch of weed science. The Award will be open to anyone residing in Australia, but members of Societies affiliated with CAWSS may be given preference.

The Young Weed Science Travel Awards will be worth up to \$2000 per annum. They are not expected to cover the total cost of the conference or study tour being undertaken and it will therefore be necessary for an applicant to ensure that other funding is available. Applicants attending conferences will be expected to give a presentation at the conference and to submit an abstract of their paper with their application.

On return, the successful applicant will be expected to give a report to the nominating Society, either as a written report for the Newsletter or as part of a seminar, meeting or workshop conducted by that Society. It will be part of the successful applicant's duty to pass on as much information as possible to the nominating Society and it is the right of the Society to specify the format of the report.

Applications are to be forwarded by 1 May each year to the appropriate Secretary/Treasurer of CAWSS. For 1997-1999 this is Bob Richardson, PO Box 42, Meredith, Victoria 3333.

Application forms are available from Leon Smith (our Secretary - see p2 for address details) and for this year must be submitted by **30 August**.



New Course in Integrated Weed Management

A new tertiary course in Integrated Weed Management has been developed as part of the Education Program of the Co-operative Research Centre (CRC) for Weed Management Systems.

The course is being taught to undergraduate students this year for the first time at the University of Adelaide and is available to internal and external undergraduates and postgraduates at the University of New England, during second semester each year. Charles Sturt University is also likely to take up teaching the subject within the next year or so.

The course has been developed in response to the perceived fragmented

approach to weeds teaching throughout Australia, and has been written by leading Australian weed experts from throughout the CRC. It deals with the ecological background to weed problems, and looks at combining cultural, biological and chemical weed control techniques in agricultural and environmental ecosystems.

More information on this new subject can be obtained from the CRC's, Tertiary Education Subprogram Leader, Dr Brian Sindel, at the Department of Agronomy and Soil Science, University of New England, Armidale, 2351, phone (067) 73 3747, fax (067) 73 3238, email bsindel@metz.une.edu.au

Members Matter

Missing

The following people have moved without providing us with their forwarding addresses. Does anyone know their whereabouts? If so, please give their new addresses to our Secretary or have them phone Leon. His address and contact phone and fax number are listed on page 2 of this newsletter. Please remember to notify your Weed Society when you change address!

Wayne Tilden
PB Hughes
J Pachos
Bill Hannaford

New members

At the same time, we welcome the following new members to the Society:

Abdul Bhuiyan, Parramatta;
Mark Congreve, Frenchs Forest;
Warwick Date, Elders Ltd, Griffith;
Robert Gill, Elders Merchandise, Swan Hill, Vic;
Peter Howden, NSW Agriculture, Wagga Wagga;
Lyn Hulme, Linfield;
Farzad Jahromi, Charles Sturt University, Wagga Wagga;
Caz McCallum, Bonnet Bay;
Michael Mitchelmore, NSW Agriculture, Goulburn;
Gertrand Norton, NSW Agriculture, Wagga Wagga;

Roxanne Rawson, Greening Australia, Stanmore; and

Luc Streit, Novartis, Wentworthville.

New branch

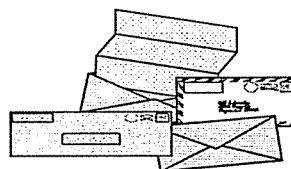
Members of the Society from southern NSW will be interested to know that a **Riverina Branch of the Society** is to be formed. Inquiries can be directed to either *Toni Commens*, Farrer Centre for Conservation Farming, Charles Sturt University, PO Box 588, Wagga Wagga 2678, Ph 065 332 749 Fax 069 332 924 email tcommens@csu.edu.au or *Richard Graham* Ph 069 332 749 Fax 069 332 812.

The inaugural meeting of the branch, to which any member of the Society or guest is invited, will be held on Thursday 15 May at the Wagga Wagga Winery commencing at 6pm. The cost for the evening meal will be \$15/head. Please RSVP Richard or Toni. Elections will be held on the night for office bearers so if you are interested in standing please mention this to Richard or Toni.

Membership

If you require membership forms for the Society to give to friends or colleagues then please contact the Secretary. Newly designed forms are now available.

Are you interested in a membership scroll (for framing etc.)? The idea has been mooted and the Executive of the Society are keen to get your views on it. One idea would be to charge a small fee for those members wanting one. Contact the Secretary with your views.



Letters to the Editor

Dear Sir

At our Annual Meeting early this month, it was brought to this Committee's attention of the article 'Goats - Can They Fill a Niche in Weed Management' in the October edition of *A Good Weed*. All of our participating groups expressed concern regarding the lack of a comprehensive

warning as to the potential danger of inadequate fencing to contain the goats that are used in weed control.

There is a real possibility of inherent danger to neighbours, those being the ordinary landholders, National Parks and Wildlife Services or State Forests, of the goats escaping into these lands, breeding and becoming widespread.

It has been our concern over the past 5 years of the number of goats being used in weed control that have been poorly fenced in, resulting in their escape. In order to control the feral goat problem it has been necessary to carry out aerial and ground shooting, often at great expense.

Our committee, along with Mr Dick Kearins and BHP, are in the process of finalising a publication called Industry Guidelines for the Control of Goats Using Specific Types of Fences. These will range from a basic fence able to control goats after a break-in period right up to a multi-wire electric fence. We are also about to trial a new form of ring-lock produced by BHP Waratah.

In the near future we will be holding a Field Day at Murrurundi to explain and demonstrate all the different types of fencing required to contain feral goats.

We have the support of the Angora Goat Society and are finding that more organisations are pleased with the types of fences that this Committee has designed.

While this Committee agrees with the use of feral goats for weed control, it is of great importance to ensure that the goats are adequately contained and therefore we shall keep you informed as to what happens with our new booklet.

PT Shersingh
Feral Animal Advisory Committee
PO Box 250
Scone NSW 2337

(Editor's note. I agree with the need for good fencing when introducing goats into new areas, and the article in question did suggest that fencing and handling facilities needed to be adequate. Nevertheless, this warning about goat control is appreciated.)

☒

Dear Sir

You may care to include the following note in your next Newsletter -Death of Dr Albert

Gast - Notable Weed Scientist, Discoverer of Herbicidal Activities of the Triazines.

Dr Albert Gast passed away in January, 1997 in Switzerland after a career with Ciba-Geigy as Principal Weed Scientist. His discovery of the herbicidal activity of the triazines in 1953 set the field for a major advance in weed science and weed control, an influence which continues to this day. It is hard to conceive the wide impact of this group of herbicides on agriculture, horticulture and many other scientific fields worldwide. The acceptance of Simazine and Atrazine immediately revolutionised weed control in maize and sorghum throughout the corn belt of the USA.

Work on triazines was introduced into Australia in 1958, when other triazines in the group found useful places in our programs, and when they were used as the basis for herbicide mixtures for total vegetation control and in horticulture. The impact of this group continues as new technologies are now developed in minimum tillage, new crops, lupins etc.

Dr Albert Gast can be rightly claimed as one of the foremost amongst the founders of weed science in Europe. He was President of the European Weed Society, Editor of their Journal for many years and Chairman of their Weed Conferences. We had the pleasure of his visits, as Principal Weed Research Officer for Geigy, to Australia, the last visit being to the Australian Weeds Conference in Hobart in 1970. He will be sadly missed by his many old friends.

Nelson Johnston
Nelson Johnson and Associates
22a Greville Street
Chatswood 2067

☒

Dear Sir

I have read in 'Resistant Pest Management', Michigan State University, about 'A Good Weed', a periodical publication from the Weed Society of New South Wales. I am interested in receiving this publication.

I am an agronomist, working for industry (BASF) and a specialist in weeds. I have published a series of 3 tomes of a work with the title "Plantas Intestantes e Nocivas" (Infesting and Noxious Plants). Tomes I and II are out of print for the moment. Tome I will be reprinted in 1997. This work

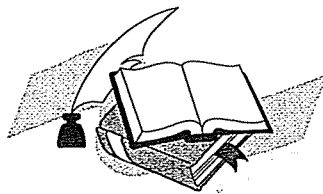
deals with plants in Brazil and other parts of South America in Portuguese. The books are on sale in Brazil for US \$80 each.

I am sending you one free copy of Tome III. Probably there are some publications about weeds in Australia and, if possible, I would like to exchange.

Possibly you will have a problem with the language - Portuguese. In the case, just enjoy the photos and drawings.

Kurt G. Kissmann
Rua João Moura, 434 / 02
05412-001 São Paulo
BRAZIL

(Editor's note - reproduced in unedited form)



Other

'Good Reads'

A Brief History of on-track Weed Control in the NSW SRA during the Steam Era

By Jim Longworth

This interesting article describes the history of weed control in the on-track areas during the steam train era (up to c. 1972). The 18 page article highlights how far the weed control industry has come from its formative stage. It is well-illustrated with numerous black and white photographs and line drawings. A must for anyone with a historical bent and written by one of our Society members!

Available in the Australian Railway Historical Society (ARHS) Bulletin, April 1996 - \$4.95 + \$3 postage from the ARHS, 67 Renwick Street, Redfern, 2016.

The Ragwort Management Handbook

By David McLaren and Frank Mickan.

This handbook is a practical guide to the integrated control of ragwort (*Senecio jacobaea*) in southern Australia and covers both agricultural and natural situations. The factual information and ideas provided are aimed at allowing land managers to develop local control and land

rehabilitation programs. The 76 pages include up-to-date information on control using herbicides, cultural methods, biological agents and pasture management. The biology of the weed and the problems it causes are comprehensively described. Copies are available for \$20 including postage and handling. Orders should be addressed to Princy Koon at KTRI, PO Box 48 Frankston, Vic 3199, phone 03 9785 0111, fax 03 9785 2007.

Chilean Needle Grass - A Landcare Weed Identification Note

Written by Mark Gardener from the Department of Botany at the University of New England and edited by David McLaren at KTRI, this colour brochure illustrates the seeds of Chilean needle grass, its flower head, tussock and a large infestation. Copies and pricing details are available at the above address.

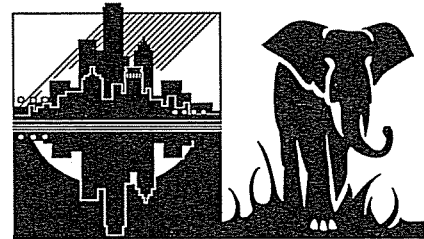


New Website for CRC for Weed

Management Systems

<http://www.waite.adelaide.edu.au/CRCWMS/>

Upcoming Events



Weed Management in the Urban Jungle

Taronga Park Zoo - Tuesday 10 June 1997

The Weed Society invites you and your associates to attend their latest conference at Taronga Park Zoo. We are sure that the fantastic venue and interesting guest speakers including Mr Jack Craw from the Northland Regional Council in New Zealand will provide you with a most informative and entertaining day.

Program:

- 8.00am Registration and coffee.
 8.50am Welcome by Zoo Director and talk on weed maintenance challenges e.g. in the alligator pit and rhino hill.
 9.30am Three Zoo case studies by staff
 10.00am International speaker - Mr Jack Craw - educating the nursery industry to prevent the spread of noxious and environmental weeds - a NZ model.
 10.30am Morning tea and trade displays.
 11.00am Narelle Montgomery (Environment Australia) - The national weed bibliography and database.
 11.30am Mr John Fisher (NSW Agriculture Program Leader Weeds) - The NSW Noxious Weed Strategy and how it impacts on urban weed management.
 12.00pm Lunch on Harbourside Terrace and trade displays.
 1.00pm Open forum with all guest speakers answering questions.
 2.00pm Zoo walks 1. Alligator exhibit 2. Australian section - when natives become weeds 3. Rhino hill - bush regeneration project.
 3.15 Free admission to the rest of the Zoo.

Registration:

Send your name, organisation, address and phone/fax details either by fax to 02 9647 2608 or mail to The Weed Society of NSW, PO Box 438, Wahroonga 2076.

Members \$75
 Non members \$100

Please make cheques payable to The Weed Society of NSW Inc. For colleagues who wish to join the Society, a separate cheque for \$20 should be included with your registration.

Accommodation:

Call Lori at the Metropole Hotel (305 Military Rd, Cremorne) to book on (02) 9909 8888. Please mention that you are booking for attendance at the Weed Society Conference to receive a discount. Standard roadside room \$60, harbourside \$70; Deluxe roadside room \$80, harbourside \$90.

PLEASE BOOK EARLY AS NUMBERS ARE STRICTLY LIMITED TO 200 PEOPLE!



Weedbuster Week

12-19 October 1997

Weedbuster Week will be held throughout Australia from 12 to 19 October 1997 to raise awareness about weeds and the problems they cause. In New South Wales, Weedbuster Week will replace and build on the success of Weed Awareness Week 1996 (see case study over page).

The aim of Weedbuster Week

The aim of Weedbuster Week is to give Landcare groups, bushcare groups, local government, government departments, schools, catchment groups and others the opportunity to promote their weed control activities and raise awareness in their local communities.

We would like to invite your organisation to take part in the activities. Feedback and suggestions are welcome.

Publicity

We encourage any organisation involved to generate publicity about their own weed control projects.

Statewide media releases will be sent out prior to and during the week.

Promotional material

We will be offering a promotional kit comprising of posters, Weedbuster badges, stickers and other promotional 'bumff' which will be sent out on request.

Type of activity

The type of activity could be a field day, a weed control demonstration, seminar, workshop, school activity (see example below), weed clean-up at a local creek or park, or any other weed control related activity (see over page).

Issues to consider if you are holding a weed clean-up event are:

- set targets which will be achievable and rewarding
- choose a site which will be publicly visible

- ensure safety of participants
- utilise best practice
- consider follow-up treatment
- consistency with local programs

Take the opportunity to consult with local land advisory officers. They will assist you in appropriate best practice, necessary preparation, follow-up and the possible involvement of other groups. Advice should be sought on replanting or other rehabilitation works.

Case study from 1996

As part of Weed Awareness Week last year, various school competitions were conducted throughout NSW. The New England Tablelands Noxious Plants County Council took this opportunity to further promote weed awareness by providing book prizes to northern schools as incentives to entrants.

The Chairman, Councillor Jim McRae and the Manager Noxious Weeds Control, Mr Kevin Waters, visited schools to talk to students about weeds and distribute prizes.

As it turned out, Lee Heintzberger from Guyra Central School went on to win the regional prize and was later chosen as the State winner of the essay competition sponsored by Du Pont Australia. Lee's coverage of the nominated subject 'Weeds and their effect on the environment' showed that she had researched the necessary material and had shown a good understanding of the issue.

Not only was there an enthusiastic response from the schools to the competitions, but there was considerable media coverage surrounding the events and the awareness of weeds was raised. Winners of the competitions also benefited thanks to the County Council. For example, School Principal at Guyra, Mr Ian Carlin, said that the resulting \$2000 prize for the school would be used to develop the school's agriculture program.

For further information please contact the State Coordinator for Weedbuster Week:

Mr Bob Trounce, Weeds Agronomist, NSW Agriculture, Locked Bag 21, Orange 2800, Phone: (063) 91 3156, Fax: (063) 91 3605

Progress in Spraying Safely and Efficiently Mildura Country Club - Monday 27 - Thursday 30 October 1997

The aim of this course is to provide training which alerts participants to advances in how to apply agrochemicals more safely and efficiently with particular emphasis on vineyard spraying. The value of GPS in reducing inputs will also be explored.

Specific objectives of the course will be to update delegates on formulations, nozzles types and droplet size distribution; improved spray retention; minimising spray drift; ground positioning systems (GPS) as an aid in pest management and reducing pesticide inputs; and best practices for vineyard spraying.

Further details are available from the Secretary, Leon Smith or from Ros Shepherd, PO Box 987, Frankston, Vic 3199, ph/fax (03) 9783 6876.

Other Conferences and Dates

28-12 September 1997
16th Asian-Pacific Weed Science Society Conference, Kuala Lumpur
Contact fax: 60-3-759-4178 (BH Baker), email: baki@botany.um.edu.my

16-18 September 1997
NSW Biennial Noxious Weeds Conference
Dubbo RSL Club, co-ordinator: Peter Gray

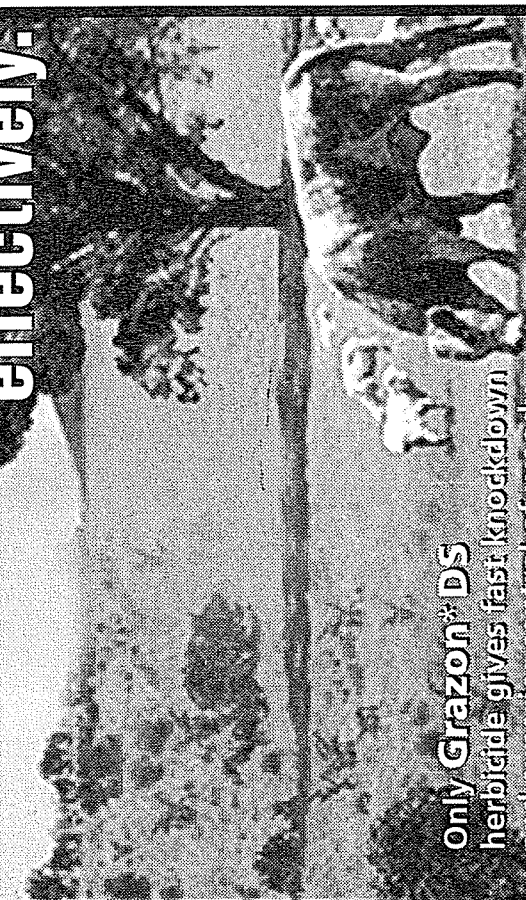
16-19 September 1997
Landcare: Changing Australia, Adelaide
Contact: Andrew Curtis, State Landcare Coordinator, GPO Box 1671, Adelaide SA 5001, fax: 08 8303 9339, email: landcare@pi.sa.gov.au

1 October 1997
Aquatic Weeds Identification Workshop
Ryde TAFE (run by the Weed Society)

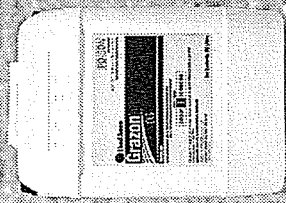
17-20 November 1997
Brighton Crop Protection Conference 1997, UK. Contact: DV Alford, ADAS, Brooklands Ave, Cambridge CB2 2BL, UK, fax: 44-1223-455624

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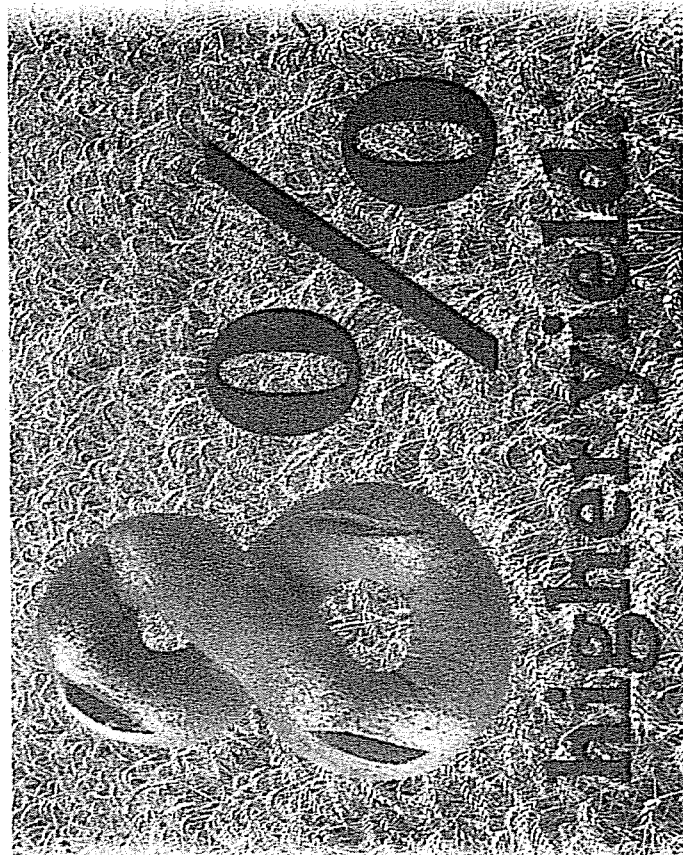
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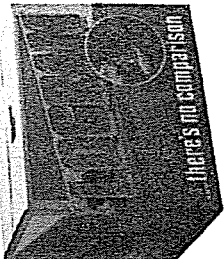
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A Good Weed

the NEWSLETTER of
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