

# NEWSLETTER

Number 1

March, 1994

oooOOOooo

PRESIDENT

Alan Murphy

SECRETARY

Leon Smith

TREASURER

Alex McLennan

EDITOR

Deirdre Lemerle

**THE WEED SOCIETY  
OF NEW SOUTH WALES**

## **In Brief**

**Capture of Weed Seed at Harvest**

**2**

**Dodder Awareness Campaign**

**2**

## **Reports**

**Two Reports of Aust. Weeds Conference, September 1993**

**3**

**NSW Noxious Weeds Legislation - Agfact**

**6**

**Progress with National Weeds Strategy**

**8**

**Noxious Weeds Advisory Committee**

**9**

## **Books**

**12**

**Call for Travel Grant Applications**

**14**

**Diary of Conferences**

**15**

**Weed Walk at Mt Tomah, Blue Mountains - 29th April**

**15**

**Future Seminar - Whats new in chemical weed control?**

**16**

## IN BRIEF

### Capture of Weed Seed at Harvest by R W Medd AR&VC Forest Road, Orange

The old adage *one years seeding is seven years weeding* is still as relevant as ever, even if it is an over simplification.

Today's farmers have forsaken many principles of farm hygiene for convenience. Take the harvest operation, for example, where the focus is on reaping grain - and all else that goes into the header usually ends up being scattered back onto the paddock.

For many weed species this is equivalent to sowing them as a crop, because they can not build up seed reserves in the soil without deposits of fresh seed. This is especially the case for annual grass weeds, for example, annual ryegrass. Add to this the burden of herbicide resistance and it is obvious that there is no merit whatsoever in sowing weed seeds at harvest time.

The way is thus open for developing efficient systems of capturing and handling weed seed trash at harvest. Research in Western Australia and in South Australia has rekindled an interest in this topic with a number of systems being trialed.

One of the more impressive efforts is the **Rytec Weed Seed Catcher** invented and developed by Robert Jaeschke, a SA farmer. It consists of a modified top sieve (lengthened by approx. 600 mm) over a catching trough from where the trash is augured into a separate bin.

Data presented at a recent workshop on herbicide resistance revealed that up to 90% of annual ryegrass seed escapes when

harvesting some crops, such as peas. This occurs where header drums have been opened and ryegrass seeds are not threshed sufficiently.

No doubt this adaptation will catch on and be improved as farmers see the many advantages of not only preventing the return of weed seeds to their paddocks but realise that this trash is also treasure. Rob Jaeschke has found the trash to be excellent supplementary stock feed and other growers in WA are pursuing opportunities to market the trash to stock feed processors.

For those with herbicide resistant annual ryegrass, this is not THE answer to your problems but it certainly is one of the more effective tools that can be used in an integrated management program. In Robert Jaeschke's words, "there is life in farming after herbicide resistance, and seed catching has certainly helped stem the problem."

More details of this system are given in Australian Grain Oct/Nov 1993 pp. 45-46 and in the proceedings of the Herbicide Resistance Workshop, Adelaide 24-25 February 1994.

### Launch of State Awareness Campaign for Dodder

A statewide campaign has begun to raise the awareness levels of farmers concerning the identification and control of the parasitic weed, golden dodder (*Cuscuta* spp.). The campaign, funded by a grant from the Government's Noxious Weeds Fund, was officially launched at Orange on 8 December 1993 by NSW Agriculture's Deputy Director-General, **Dr Alan Smith**.

The publicity campaign has been organised

by a working group consisting of **Hugh Milvain** (Convenor), **Bob Trounce**, **Neil Nelson**, **Lester McCormick** and **Peter Gorham**. It will target all sections of the media during the 1993/94 summer. In addition, a specially prepared identification and awareness kit will be distributed to over 500 key advisers located with state government departments, local government, high schools, universities, catchment management committees and landcare groups.

The kits contain literature, posters, press releases and slides, plus a 7-minute video describing the plant and its control.

oooOOOooo

## REPORTS

**Two Reports on the 10th Australian & 14th Asian/Pacific Weeds Conference, Brisbane, September 1993 by recipients of a Society Travel Grant**

### A. By Mike Barrett

This was a well attended, enjoyable and well organised Conference with a good venue. The enthusiastic number of young weed scientists attending was most encouraging and stimulating.

As with any conference there are many personal highlights, but in the interest of brevity and objectivity these have been collated under the following headings:

#### 1. Organisation

The importance of poster presentations and their integration with the overall programme was excellent.

The quality of slides particularly for tables and other data was very good with a huge range of colours being used. However, for many slides of crops etc the projectors were inadequate.

The tours organised during the Conference were well supported and good value, though some involved considerable travel. The area around Nambour north of Brisbane was visited. Here the pressure of forestry and urban development is leading to massive weed problems in areas of remnant bushland. Main weeds include mistflower (*Eupatorium riparium*), Giant Rat's Grass (*Sporobolus pyramidalis*), both declared plants, and Lantana, Madeira Vine and the forestry escape Slash pine (*Pinus eliottii*).

There was an interesting Weed Identification Competition which was of considerable educational value.

#### 2. Content

There were several papers on new herbicides, largely from the chemical groups which inhibit amino acid biosynthesis (sulphonylureas, imidazolinones and triazolopyrimidines-ALS inhibitors). Monsanto are developing a new pre-emergent herbicide (active ingredient thiazopyr) for sugar cane which shows a high level of activity on a wide spectrum of grass weeds and is stable when surface applied under dry soil conditions.

Two interesting papers were those by Cook *et al.* relating to selective spray topping on wheat and by Murphy on the use of fluroxypyr (Starane®) for control of Wandering Jew (*Tradescantia*) which would have many advantages in bush regeneration programs. There is still widespread interest in managing resistant weeds with a number of surveys reported.

The widespread incidence of environmental weeds was highlighted.

Two New Zealand papers on the development of herbicide resistant plants and an extension programme for biological control of weeds were most interesting. Several papers looked at expert systems which seem to have considerable limitations.

The Quality of the invited papers was high and these sessions were well attended. It is a sobering thought that there are approximately 40 weed scientists in Australia compared to Taiwan who had 43 representatives. Conferences would be incomplete without a fringe element; in this case provided by a presentation of a hot water treatment system for controlling weeds developed in New Zealand.

### 3. Equipment and Techniques

A good display of spray equipment was shown on the Tropical Fruit Field Tour. Of particular interest was a cut stump applicator and a hand wand for applying herbicides to water. Slides of this equipment can be made available.

A checklist of introduced weeds in the Brisbane area is also available.

Regarding the use of photographs for extension or training purposes colour prints may be photocopied in colour and used as overheads. This avoids the need for colour slides and should be successful.

### 4. Follow Up Suggestions

A paper entitled "Toward a National Approach to Efficient Pesticide Use" by Evans *et al.* won the CAWSS award for Emerging issues. The significance and priority of this issue in terms of herbicides is questioned. However, the Bureau of Resource Sciences is to develop discussion papers regarding the setting of indicative

national targets for the use of selected agricultural chemicals which would be referred to SCARM (Standing Committee on Agricultural and Resource Management). It is essential that CAWSS has some input into this process.

There were delegates who did not belong to Weed Societies at the Conference. It is suggested that the list be examined for potential members who should be followed up.

The National Weed Strategy is languishing and it was agreed at the Conference that CAWSS pursue the matter.

### 5. Conclusion

This conference was of great value, and the NSW Weed Society is thanked for their generous support. Congratulations to John Swanbrick and the Organising Committee.

### B. By Chris Nazer,

#### ACT Parks and Conservation Service

Being the recipient of a 1993 NSW Weed Society Study Grant allowed me to attend the combined weed conference in Brisbane during September. The combination of the two societies provided for a very diverse conference in many ways. It was also a well balanced conference!

On the biocontrol front several papers drew out a number of important issues. Host specificity testing is obviously an essential component of any successful introduction of a biocontrol agent. The criteria being used for the assessment is comprehensive, but is being found to be lacking in flexibility to meet the requirements across a range of types of agents and situations. There were calls to review the criteria. There were questions posed about the number of different agents

which need to be released for a biocontrol program and the need for effective assessment of the efficacy of the agents. Agents can fail completely as has happened in more than 70% of cases to date, or have partial effect on weed infestations and these effects cover a range of possible outcomes. Only by looking at the population dynamics of the target weed as affected by the control agent can information on improving impact and whether or how other control agents might contribute to improvements in control. An excellent plenary presentation called for a re-focusing of attention onto the target weed population dynamics rather than the agents. Without ecological studies of the weed it is unlikely that the reasons for success or failure of biological control will come to be understood.

A number of biocontrol agents are being released (or considered for release) despite the fact that they may have some impact on amenity, crop or native plants, eg rubber vine rust, blackberry rust, lantana insects, fireweed insects/diseases. Whilst fully supporting these actions from a scientific viewpoint, I hope that these impacts do not provide a community backlash against biocontrol in a political sense. The low level of understanding of the biocontrol principles and processes by the general public never ceases to amaze me. Perhaps the topic should be compulsory in both primary and secondary education.

Going to an Australian Weed Conference with an interest in urban and environmental weeds rather than in agricultural weeds usually means that the field trips have little or nothing to offer. This conference was a pleasant change for me. I had the opportunity to visit a pesticide manufacturing plant to learn first hand how much emphasis they place on staff and environmental safety. The

technological skill of Australians was evident with Inictec having broken into the European export market with slow release formulations of insecticides for the potted plant market. Visits to the CRC for Tropical Pest Management gave some strategic planning insights which I can use elsewhere, whilst the Alan Fletcher and CSIRO Biological Research stations were of interest.

The International Weed Control Congress in Melbourne in 1992 had much to offer people interested in environmental and urban weed management and they attended in reasonable numbers. For whatever reasons Australian Weed Conferences seldom offer much of interest in this area, and seldom at a practitioner level. There was a paper on PGR's and a couple dealing with revegetation and rehabilitation, whilst public and environmental safety seems to have become a backwater issue with the advent of 1990's. Unfortunately, there is still a strong anti-pesticide attitude within the urban community. On the other hand, the concerns for public health and environmental quality are powerful although often misguided arguments which have led to improved guidelines, training, and safer use of herbicides in urban areas.

The large and diverse poster display was a highlight from my point of view and has led to several advances in thinking for my organisation. Many ideas in one area of weed science can be adapted to another if one is given time to experiment.

I would like to express my thanks to the NSW Weed Society for the opportunity to attend the conference and gain from the total experience.

oooOOOooo

## NSW noxious weeds legislation

Agnote DPI/78  
 Second edition, September 1993  
 Peter Gray  
 Noxious Plants Advisory Officer, Dubbo  
 Bob Trounce  
 Weeds Agronomist, Orange  
 Peter Gorham  
 Noxious Plants Advisory Officer, Cowra

1 July 1993 saw the introduction of the Noxious Weeds Act 1993. The Act is based on, and replaces Parts XXII and XXVIII of the Local Government Act 1919.

The administration of noxious weed control in New South Wales is now the responsibility of the Minister for Agriculture & Fisheries.

The new Act will:

- maintain the role of local government, called local control authorities (LCAs)
- modernise the legislative framework under which these LCAs operate
- provide for the categorisation of noxious weeds
- require the Crown to control weeds on land under their control

It clearly defines the role of the Minister for Agriculture & Fisheries, LCAs, public authorities, private landholders and Departmental officers. The responsibilities of LCAs, owners and occupiers (except public authorities) remain essentially unchanged.

Overall, the Act streamlines procedures and emphasises community cooperation to ensure a coordinated and uniform approach to the control of noxious weeds throughout New South Wales. It also allows for an increased emphasis on urban and environmental weeds.

# agnote

ISSN 1034-6848



NSW Agriculture

Division of Plant Industries

### READ THE ACT

A copy of the Noxious Weeds Act 1993 is available from the Government Information Service  
 PO Box 258  
 Regents Park NSW 2143  
 (02) 743 7200

### ROLE OF LOCAL CONTROL AUTHORITIES

Under the Act, LCAs will retain their role in enforcing the control of noxious weeds. Inspectors with LCAs will continue to inspect weed infestations on private property and issue notices.

Penalties have significantly increased. There is a maximum \$10,000 fine for failing to comply with a notice. Authorities are also able to charge landholders for the cost of any follow-up inspections that are required after the issue of weed control notices, or for the cost of eradicating noxious weeds where the landholder has failed to comply with a notice.

Notice of entry to inspect a property can now be verbal or written.

Weeds inspectors must possess a certificate of authority which is in a form approved by the Director-General of NSW Agriculture.

### RESPONSIBILITY OF PUBLIC AUTHORITIES

Public authorities must control noxious weeds on land under their control, to the extent necessary to prevent the weeds from spreading to other land.

Public authorities include government departments, statutory bodies, Rural Lands Protection Boards and trustees of reserved land areas dedicated for any public purpose.

## CATEGORISATION

A major change included in the new Act is the declaration of noxious weeds in four categories. Noxious weed species are to be categorised according to the action required for their control. This takes into consideration the extent of the weed, available control methods and the threat of further spread or damage. The categorisation is not intended as a ranking of the weed species according to their importance, although this may influence placement into a particular category.

Categorisation, in effect, formalises what has always been widely practised by local councils—that is, deciding that it is not possible for landholders to eradicate certain noxious weeds. In these cases the councils have often required landholders to contain the weed and/or gradually reduce the extent of the infestation.

This does not imply that a W3 noxious weed is of lesser importance, in fact it may be of greater importance than other noxious weeds in category W2.

The category for each noxious weed may vary for each LCA although uniformity will be retained wherever possible. The four categories are:

### W1 (Notifiable)

#### Definition

A weed which is of limited distribution or does not occur in the State but which poses a severe threat to agriculture, the environment, or the community.

#### Examples

parthenium weed, cannabis, horsetail, kochia

#### Action

Private landholders and public authorities must notify the LCA within three days of detecting a W1 noxious weed on their land.

Private landholders must fully and continuously suppress and destroy W1 weeds. Public authorities must fully and continuously suppress and destroy W1 weeds which are likely to spread to other land.

An LCA must ensure that action is undertaken as soon as possible to fully and continuously suppress and destroy all W1 weeds on private land within its area. Where a W1 weed occurs on private land it is expected that the LCA will either control the weed itself without delay, or direct and supervise the landholder to do so.

#### Movement and sale

It is illegal to sell, offer for sale, move or cause to be moved any W1 weed material, or any animal or thing which has W1 weed material on, or in it.

### W2

#### Definition

A weed which poses a threat to agriculture, the environment, or the community and has the potential to spread to other areas.

#### Examples

salvinia<sup>†</sup>, water hyacinth<sup>†</sup>, dodder, rhus

<sup>†</sup> W2 on coast but W1 on inland rivers

#### Action

Private landholders must fully and continuously suppress and destroy all W2 weeds.

Public authorities must fully and continuously suppress and destroy all W2 weeds which are likely to spread to other land.

An LCA must fully and continuously suppress and destroy W2 weeds growing on its own land and, ensure that private landholders carry out their duties with regard to W2 weeds.

### W3

#### Definition

A weed which poses a threat to agriculture, the environment, or the community and has the potential to spread to other areas, but is so widespread that total suppression and destruction is impractical.

#### Examples

paterson's curse, noogoora burr (in many areas)

#### Action

Landholders must prevent the spread and reduce the numbers and distribution of W3 weeds to the satisfaction of the LCA.

Authorities must prevent the spread and reduce the numbers and distribution of those W3 weeds likely to spread to other land.

An LCA must prevent the spread and reduce the numbers and distribution of W3 weeds growing on its own land and, ensure that private landholders carry out their duties with regard to W3 weeds.

### W4

#### Definition

A weed which poses a threat to agriculture, the environment, or the community and has the potential to spread and for which a specified action, which is different to that required under any of the other categories, must be undertaken.

There are no W4 weeds listed at the commencement of the Act. However these may be added where an LCA submits an application to the Minister. The application must specify the control action required.

#### Example

An example could be that a specified noxious weed must not be allowed to grow closer than one metre to a property boundary in an urban area.

#### Action

Private landholders must take whatever action is specified in the declaration of a W4 weed.

Authorities must take whatever action is specified in the declaration where the weed is likely to spread to other land.

An LCA must undertake such action as prescribed for W4 weeds growing on its own land and, ensure that private landholders carry out their duties with regard to W4 weeds.

## Progress with the National Weeds Strategy

by Ian Black, Chairperson

Following a directive from the Standing Committee on Agriculture and Resource Management (SCARM), the National Weeds Strategy (NWS) is being re-written. In essence, SCARM wanted NWS revised to incorporate priority programs of national significance, with a view to committing significant resources to address these priorities.

The NWS Writing Team (see below) has met on two occasions since the report by Leon Smith at the 10th Australian Weeds Conference in Brisbane, and has made considerable progress in reformulating NWS. In essence, NWS will be formulated around four objectives and will include 13 priority issues.

The objectives are:

1. **Preventative**  
To reduce the risk of introduction and establishment of weeds which may have a significant effect on production, trade, amenity or biodiversity.
2. **Early Action**  
To find, evaluate and deal with weed outbreaks at the earliest opportunity, where the weed poses a significant threat.
3. **Contaminants**  
To minimise the spread of established weed species which pose a significant threat to production, trade, amenity or biodiversity.
4. **Management**  
To foster the development and

implementation of weed management strategies consistent with the principles of ecologically sustainable development.

The priority issues (not in any order are): Athel pine, mimosa, rubber vine, prickly acacia, pond apples, bitou bush/boneseed, mesquite, kochia, woody shrubs in rangelands, herbicide-dependent farming and forestry production systems, ponded pastures, quarantine and screening of plant imports, and community-based bush regeneration programs near urban areas.

It is anticipated that the writing team will meet one more time, in March 1994, prior to submission of NWS to SCARM out-of-session, with the finalised document ratified by SCARM at its next meeting in July. NWS will then be ratified by the relevant Ministerial Councils - Agriculture and Resource Management, Environment and Conservation, Forestry.

### The Strategic Role of CAWSS

At its December meeting, the NWS Writing Team gratefully accepted the CAWSS offer to make representations to the Ministers for Primary Industries and for Environment in Canberra at the appropriate time. The NWS Writing Team will advise CAWSS on the right timing, which is likely to be May-June 1994.

### NWS Writing Team:

#### Australian Weeds Committee

Mr Ian Smith, Department of Agriculture, Victoria (Convenor)

Dr Alan Harradine, Department of Primary Industries & Fisheries, Tasmania  
Dr Bob Martin, NSW Agriculture (ex officio)

Dr Bruce Wilson, Department of Lands, Queensland



Australian Forestry Council

Dr David Flinn, Department of Conservation & Natural Resources, Victoria

Australian & New Zealand Environment & Conservation Council

Mr Tom Fox, NSW Parks & Wildlife Service

Dr Stella Humphries, CSIRO Wildlife & Ecology

Mr Robert Moore, Australian Nature Conservation Agency

National Coordinating Committee Aquatic Weeds

Dr David Mitchell, Murray-Darling Freshwater Research Centre

oooOOooo

## Noxious Weeds Advisory Committee

The NSW Minister of Agriculture recently appointed members to the Noxious Weeds Advisory Committee Act 1993. The major functions of the Committee are to:

- provide a forum for all matters relating to the control of noxious weeds
- allocate and administer funds from the Government's Noxious Weeds Fund
- categorise noxious weeds for declaration.

The NWAC is chaired by **Doug Hocking** Program Manager NSW Agriculture, while **Dr Andrew Leys**, Program Leader (Weeds) is the Department's weeds specialist on the Committee.

Thirteen other members represent a wide range of interests and expertise including rural and urban landholders, local government councils, Government Departments and authorities, conservation and environment groups, catchment management committees, and individuals from the community. The NWAC is the only noxious weeds ministerial advisory committee in Australia which has representation from such diverse interest groups.

### First Meeting of the Noxious Weeds Advisory Committee

The first meeting of the NWAC was held in Orange on 8 and 9 December. The Committee's first tasks were to establish policies for the management of noxious weeds, and to allocate funds.

Under the new Act, public authorities such as the NSW National Parks and Wildlife Service, the Department of Conservation and Land Management, and the State Forests of NSW, will be required to control weeds growing on land under their control. An amount of \$250,000 has been earmarked by the Government to assist these agencies control noxious weeds on their land. Other public agencies must provide funds from their own budgets to control noxious weeds.

### Functions of Committee

1. To provide a forum for local control authorities (LCAs) and public authorities, and the community through LCAs, to make recommendations to the Minister on matters relating to the control of noxious weeds.
2. Based on the recommendations of the Technical Weeds Committee, recommend to the Minister,

- allocations from the Government's Noxious Weeds Grant Scheme.
- 3. To ensure local control authorities and other bodies are accountable for funds they receive from the Government's Noxious Weeds Grant Scheme.
- 4. Based on the recommendations of the Technical Weeds Committee, recommend to the Minister, plant species to be declared, by category, as noxious weeds.
- 5. To assist the Minister to resolve disputes involving the control of noxious weeds by public authorities.
- 6. To carry out such functions of an advisory or educational nature with respect to noxious weeds as may be directed by the Minister.
- 7. To attend to any other matters relating to the control of noxious weeds as requested by the Minister.

**Composition**

The NWAC comprises 15 members. The Chairman (Program Manager, Quality Assurance and Plant Protection) and Deputy Chairman (Program Leader, Weeds) are NSW Agriculture employees. Thirteen other members are selected from nominations sought from:

- 1. *Major public land managers*  
Five (5) members selected from representatives nominated by the Rural Lands Protection Boards, State Forests of NSW, NSW National Parks and Wildlife Service, the State Rail Authority, and one representative nominated by the Minister for Conservation & Land Management.
- 2. *Organisations representing private landholders*  
Two (2) members nominated by the Shires Association (one from a

general purpose council and one from a weeds county council), one (1) member nominated by the Local Government Association, and one (1) member nominated by the NSW Farmers' Association.

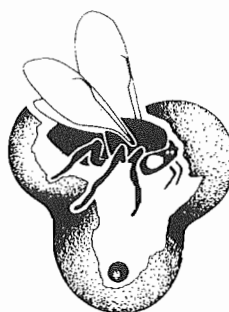
- 3. *Organisations, community groups, or individuals concerned with the protection of the environment or land/hush conservation*

One (1) member nominated by the EPA, and one (1) member nominated by the Nature Conservation Council of NSW. One (1) member to represent Catchment Management Committees. One (1) member from the community to be selected by the Minister.

**Tenure**

Ministerial appointments will serve for a period of two years, but appointees may be nominated for re-appointment.

oooOOOooo



**Request for additional information**

If you want to be included on the symposium mailing list, please complete this form and return it to:

Dr J.H. Hofmann  
Zoology Department  
University of Cape Town  
Rondebosch 7700  
South Africa

Full name (and title):

Postal address:

**IX INTERNATIONAL SYMPOSIUM**

on  
**Biological Control of Weeds**

21 - 26 January 1996

South Africa

\*Phone: .....

\*Fax: .....  
\* Please include area codes

E-mail: .....

Institutional affiliation:

(Please also complete the other side of this form)

## NOXIOUS WEEDS ADVISORY COMMITTEE - DECEMBER 1993

Mr Doug Hocking (Chairman) (Representing NSW Agriculture)	Dr Andrew Leys (Representing NSW Agriculture) NSW Agriculture	Mr Peter Merton (Representing Rural Lands Protection Boards) "Journey's End"
Locked Bag 21 ORANGE NSW 2800	Locked Bag 21 ORANGE NSW 2800	Bridle Track via BATHURST NSW 2795
Mr Ellis Nicholson (Representing State Forests of New South Wales) State forests Northern Region Office PO Box J19 COFFS HARBOUR NSW 2450	Mr Alastair Howard (Representing NSW National Parks and Wildlife Service) PO Box 1967 HURSTVILLE NSW 2220	Mr Mike Boulton (Representing Department of Water Resources) PO Box 205 DENILIQUN NSW 2710
Mr Jim Longworth (Representing State Rail Authority of NSW) 2nd Floor, Freight Rail House 126 Church Street PARRAMATTA NSW 2150	Cr Len Woods (Representing Shires Association) "Kylee" NIANGALA NSW 2354	Cr Malcolm Olive (Representing Shires Association) 1405 Wyan Road RAPPVILLE NSW 2469
Cr Jim Roustas (Representing State Rail Authority of NSW) 9 Dean Street STRATHFIELD SOUTH NSW 2136	Mr Greg Nuthall (Representing NSW Farmers' Association) "Dutton Park" YOUNG NSW 2594	Dr Gillian Dunkerley (Representing Environment Protection Authority) Bankstown Civic Tower Locked Bag 1502 BANKSTOWN NSW 2200
Dr David Murray (Representing Local Govt Assoc of NSW) 9 Dean Street STRATHFIELD SOUTH NSW 2136	Mr Max Hanrahan (Representing Catchment Management Committees) "Mowbray Park" LYNDHURST NSW 2797	Ms Judie Rawling (Representing Community) Urban Bushland Management Ltd PO Box 62 ROSEVILLE NSW 2069

## BOOKS

**Life Cycles of Rice Field Weeds and their Management in Malaysia** edited by K Itoh, Tropical Agriculture Research Centre, Ministry of Agriculture, Owashi, Japan, 1991. 92 pp. (In English)  
(Order from K Itoh, Department of Lowland Farming, Tohoku National Agricultural Experiment Station, Ministry of Agriculture, Forestry and Fisheries, Omagari, Akita, 014-01 JAPAN.)

According to the *Introduction*, "The most important information for weed management is the in-depth understanding of weeds' life cycle and the strategies adopted to control these species."

This colourful handbook includes 17 species of major weeds in rice fields, especially those in the family Poaceae. Each species is described and its habitat is defined. Effective control methods for each weed are described, including hand pulling and cutting, burning, rotovation, as well as herbicides and biological controls.

What makes this book especially useful and distinctive is its use of many colour photographs showing "characteristic parts" of each plant (flowers, seedlings, young plants, comparisons) as well as photographs of each "life cycle". Life cycles are depicted in circles of colour photos of each stage of life: seed, emergence, seedling, small plant stages, tillering, growing as weeds, heading, flowering, seed development and dispersal.

**A Handbook for Weed Control in Rice** by K Ampong-Nyarko and S K De Datta, International Rice Research Institute, Manila. 1991. 113 pp.  
(Order from Division PR, Information Centre, IRRI, PO Box 933, 1099 Manila, Philippines, US\$17.50 (including shipping)

for developed nations; US\$8.25 for developing nations.)

In ten chapters, this book provides practical information on weed management in irrigated rice, rainfed lowland rice, upland rice and deepwater and floating rice. Chapters cover the effects of weeds, identifying 30 weeds and the principles of herbicide use. A special chapter is devoted to especially difficult-to-manage weeds such as *Scirpus maritimus*, *Cyperus rotundus* and *Rottboellia cochinchinensis*.

**Pesticides in Urban Environments, Fate and Significance** was developed from a symposium sponsored by the Division of Agrochemists at the 203rd National Meeting of the American Chemical Society held in San Francisco, California in April 1992. It presents information on the use, environmental fate, and toxicological significance of pesticides in urban environments. The book covers such products categories as turf pesticides, termiticides, home and garden pesticides, indoor pesticides, and rodenticides. Descriptions of the use patterns and practices characteristic of the urban pesticide market and analysis of the issues facing the arena are included. It contains detailed coverage of the persistence, degradation, and mobility (leaching, runoff, and volatility) of commonly used urban insecticides and herbicides, and addresses exposure and risk assessment for humans and non-target animals. May be purchased from local booksellers or order from the ACS Distribution Office, Dept. 30, 1155 Sixteenth Street, NW Washington, DC 20036, USA. The cost is us\$94.95.

**Agricultural Chemicals: Book II Herbicides**, (1993 revision) describes in detail the herbicides used in the world today. Experimental materials are included to update developments in the

weed control field. Grouped chemically into phenoxy compounds, dinitroanilines, carbamates, triazines, substituted ureas, etc., they are all described in detail. Available at us\$19.50 per copy from Thompson Publications, PO Box 9335, Fresno, CA 93791.USA

**Physiology of Herbicide Action** is an up-to-date comprehensive approach to herbicide action, including coverage of herbicide mechanisms of action; secondary effects of herbicides on the physiology of plants; naturally-occurring chemicals as herbicides' herbicide structure-activity relationships; testing for herbicide activity and mode of action' and interactions of herbicides with other herbicides, synergists, and safeners. Highlights include: root absorption of herbicides; foliar absorption of herbicides; herbicide absorption and accumulation in plant cells; herbicide translocation, metabolism; herbicidal inhibition of photosynthetic electron transport; oxygen toxicity and herbicidal action; herbicidal effects on microtubular function; herbicide effects on lipid synthesis; nucleic acid and protein synthesis inhibitors; herbicidal inhibition of amino acid syntheses, herbicides with auxin activity, other sites of herbicide action; and secondary physiological sites of herbicides. The book is ideal for scientists in weed science, pesticide science, plant physiology, and agronomy. Order from Maker and Taylor Books at four locations: Somerville Service Centre, 50 Kirby Av., PO Box 734, Somerville, NJ 08876-0734, USA. Price per copy is us\$77.00.

**Toxicology and Pesticide Use in Relation to Wildlife: Organophosphorus and Carbamate Compounds** summarises what is known about organophosphorus and carbamate pesticides from wildlife toxicology literature and discusses the potential hazards to wildlife by examining toxicity, environmental persistence, and

use patterns of the pesticides. Specific topics include: properties of organophosphorus and carbamate pesticides; wildlife toxicology; pesticide use estimates; and chemical summaries and hazard evaluations. Available at us\$72.00 from CRC Press, Inc, 2000 Corporate Blvd, NW, Boca Raton, Florida 33431 USA.

**Target Assays for Modern Herbicides and Related Phototoxicity Compounds** features 38 comprehensive contributions to determine and quantify the inhibition activity of modern herbicides and related phytotoxic compounds at their targets. It provides experimental details to assay herbicides at their target domain or site, emphasises reproducible assays that can be set up in industrial and weed research laboratories, and emphasises routine character of assays. The book is useful for establishing screening assays for new compounds at the level of model species and cell free or enzymatic systems. Assays described are perfect for use with typical equipment found in modern biomedical laboratories (no special or sophisticated instrumentation is needed). Assays discussed include carotenoid and chlorophyll biosynthesis and degradation, photosynthetic electron transport, amino acid biosynthesis, fatty acid formation, and cell division. The book features updated methodology and procedures that will be a tremendous asset to plant biochemists; agriculture, plant protection, and weed control experts; agricultural herbicide specialists in industry and government; and students in agricultural biochemistry and physiology. Order from Lewis Publishers, 2000 Corporate Blvd, NW, Boca Raton, Florida 33431. Approximate price us\$108.00.

oooOOOooo

## Call for Travel Grant Applications

Applications are invited for a 1994 Weed Society of NSW Travel Grant.

The purpose of the grant is to assist members of the Society to attend conferences or seminars, or undertake study tours associated with weeds.

Applications should be forwarded to the Secretary before 31 May 1994.

oooOOOooo

## Articles and Comments are Required for YOUR Newsletter

Please send any material to:

**Deirdre Lemerle**  
NSW Agriculture  
Agricultural Research Institute  
PMB  
Wagga Wagga NSW 2650

Fax: 069 381 809, Ph: 069 381 999

The Weed Society of Queensland Inc.

### CONTACT INFORMATION

Meetings & Events at the University of Southern Queensland is the Professional Conference Organiser and Secretariat. Registration and accommodation enquiries should be directed to:

Manager  
Meetings & Events  
Marketing and Public Relations  
University of Southern Queensland  
PO Box 282  
Darling Heights Qld 4350  
Phone: (076) 31 2581 Fax: (076) 35 5550

### PROVISIONAL PROGRAMME

Invited papers will cover topics such as:

**Weeds and their control**  
declared plants (noxious weeds)  
national parks weeds  
woody weeds  
forestry weeds  
environmental weeds  
urban weeds  
water weeds

**Social and environmental aspects of weed control**  
environmental effects  
regulatory and policy  
workplace health and safety  
education  
national weed strategy

**Effective weed control methods**  
herbicide application  
biological control  
revegetation and rehabilitation  
integrated weed management

**Workshops, trade displays, demonstrations, new equipment**  
There will be a mid-conference field tour to look at weeds in southern Queensland.

Suggestions for invited speakers of these topics can be made to the programme coordinator, Mr Hugh Reardon-Smith, C/o Seed & Grain Sales, PO Box 257, Pittsworth Qld 4356.

### REGISTRATION OF INTEREST

If you would like to be added to the mailing list for conference registration forms, please provide the following details and post to the reply paid address as soon as possible:

Surname \_\_\_\_\_

Given Name \_\_\_\_\_

Position \_\_\_\_\_

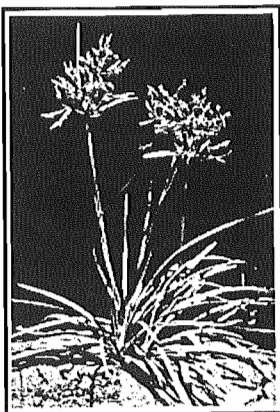
Organisation \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

Telephone \_\_\_\_\_

Facsimile \_\_\_\_\_



*invites you to the*

## Third Queensland Weed Symposium

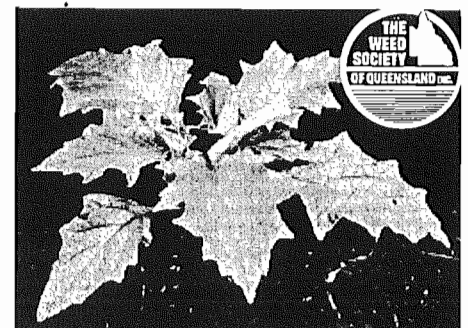
*to be held at the*



**University of Southern Queensland**  
TOOWOOMBA • QUEENSLAND

*from*

**12-14 July 1994**



---

## DIARY OF CONFERENCES

*4-9 July, 1994*

**8th International Congress of Pesticide Chemistry.** Washington DC, USA. Contact: Office of the Secretariat, American Chemical Society, 1155 16th St NW, Room 205, Washington, DC 20036, USA.

*21-27 August, 1994*

**24th International Horticultural Congress.** Kyoto, Japan. Contact: Japanese Society for Horticultural Science, Faculty of Agriculture, Kyoto University, Sakyo, Kyoto 606, Japan.

---

*6-10 February, 1995*

**4th International Symposium on Adjuvants and Agrochemicals.** Melbourne, Australia

*2-7, July, 1995*

**XIIIth International Congress on Plant Protection.** The Hague, Netherlands. Contact: Dr J C Zadoks, Wageningen Agricultural University, POB 8025, 6700, Wageningen, Netherlands.

*24-28 July, 1995*

**15th Asian/Pacific Weed Science Society Conference, Japan.** Any correspondence concerning the Conference should be sent to: The Secretary, 15th-Asian-Pacific Weed Science Society Conference, C/- Institute of Applied Biochemistry, University of Tsukuba, Ibaraki 305, Japan.

*21-26 January, 1996*

**The IX International Symposium on Biological Control of Weeds.** Stellenbosch, South Africa from .For further information contact: Dr. J.H. Hoffman, Zoology Department, University of Cape Town, Rondebosch 7700, South Africa. Phone: +27 21 650 3400. Fax: +27 21 650 3726. E-mail: hoff@botany.uct.ac.za

*25-28 June, 1996*

**2nd International Weed Control Congress.** Copenhagen, Denmark. Contact: Secretariat, ICSS Strandvejen 171, PO Box 41, DK-2900 Hellerup, Denmark.

*November, 1996*

**11th CAWSS Conference.** Melbourne.

oooOOOooo

## WEED WALK AT MT TOMAH, BLUE MOUNTAINS

Members and friends of the Weed Society of NSW are invited to see weed regeneration following the disastrous January bushfires, and to enjoy the beauty of the Mt Tomah Botanic Gardens and the Blue Mountains area.

When:           **Friday 29th April 1994**

Where:           Mt Tomah Botanic Gardens

Time:           Meet at 10.00am in the Botanic Gardens carpark on the Bell's Line of Road, Mt Tomah.

Officers of the Botanic Gardens and Blue Mountains City Council will be on hand to talk about weed problems and explain control methods.

Please advise Leon Smith (047 393 564) or Mike Barrett (02 875 3087) by Tuesday 26th April if you will be attending. Lunch will be available at the gardens.

If undelivered please return to:  
PO Box 438  
WAHROONGA 2076



---

**WEED SOCIETY SEMINAR**  
Thursday 21st July 1994

**What's New in Chemical Weed Control?**

- 0930 Registration, tea & coffee
- 0955 Introduction
- 1000 Herbicides for weeds of winter crops and pastures
- 1040 Herbicides for weeds of summer crops and pastures
- 1120 Herbicides for turf, recreational & environmental weeds
- 1200 Posters and weed display viewing
- 1230 Lunch
- 1300 Adjuvants and herbicides
- 1400 Herbicide resistance in perspective
- 1430 Noxious weeds of the Sydney area and their control with herbicides
- 1500 Coffee or tea
- 1530 Are there sensible alternatives to herbicides for noxious weed control?
- 1540 Panel discussion
- 1630 Sum-up and close

Location of seminar in the Sydney area to be announced  
Cost: Member \$25, non-members \$35

---