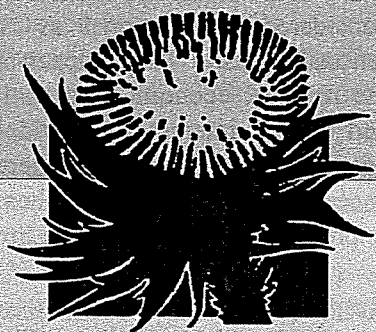


# A Good Weed



the NEWSLETTER of  
The Weed Society of New South Wales Inc  
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# 7  
OCTOBER 1996

## Noxious Weed Strategy

**W**eeds cause major problems for the community, environment and agriculture. To improve delivery of noxious weed control in New South Wales, the Noxious Weeds Advisory Committee (NWAC) has commissioned the development of a Noxious Weeds Strategy (NWS), the draft of which has now been released for public discussion. This article is a summary of the recommendations of that draft strategy and is printed here to initiate comment from Society members.

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## .... Noxious Weed Strategy

The Noxious Weeds Advisory Committee, who commissioned this draft strategy has the role of providing advice to the Minister for Agriculture on issues related to noxious weed control in NSW.

It is comprised of representatives of: NSW Agriculture, the Shires Association, the Local Government Association, the NSW Farmers' Association, the Rural Lands Protection Boards, State Forests of NSW, NSW National Parks and Wildlife Service, the Department of Land and Water Conservation, the State Rail Authority of NSW, the Environment Protection Authority, the Nature Conservation Council of NSW, Catchment Management Committees and the Community.

The major recommendations in the draft strategy emerged from a workshop on noxious weeds that was held in Goulburn during August 1995, to obtain input from a wide cross section of interest groups and the community. The inclusion of these recommendations in this draft strategy does not imply agreement by NSW Agriculture or the Minister for Agriculture.

The draft has been released to enable wide discussion within the community so that a strategy that has the broad support of all stakeholders can be finalised. The Noxious Weeds Advisory Committee now invites written comments on this draft strategy, the summary of which is shown below. These should be forwarded to the:

Secretary  
Noxious Weeds Advisory Committee  
Locked Bag 21  
Orange NSW 2800

to be received by 1 December. All comments will be considered in the preparation of a Noxious Weeds Strategy to be presented to the Minister for Agriculture.

A copy of the full draft NWS may be obtained by phoning NSW Agriculture.

### Summary of recommendations in draft Noxious Weeds Strategy

Weeds and their control are a subject which has a number of dimensions and is considered in emotional as well as in rational terms. They impact on politics, the national economy, regional business, and are of interest to a wide range of people and communities. Therefore, it is necessary to address all of these interests in preparing a Noxious Weed Strategy.

Under 'Roles and Responsibilities' (Section 2), the contribution from bodies which have a fundamental interest in noxious weed control is discussed. There is a need to provide an organisational arrangement which gives all stakeholders the opportunity for involvement in development of policy, planning, implementation and resourcing noxious weed programs. The following strategic actions are recommended:

- Invest the noxious weed responsibilities of all multi-purpose councils into a maximum of 25 Weed County Councils (WCC) with responsibility for management, implementation and coordination of programs within their local area.
- Establish advisory committees on each WCC and foster wide community involvement in the operation of the WCC.
- Establish 7 regional noxious weed committees within New South Wales, with wide stakeholder representation, to determine regional weed priorities and plan, resource, implement, monitor and coordinate programs.
- Consider the amalgamation of noxious weed and animal health functions administered by the Rural Lands Protection Boards with an Agricultural Protection Board adopting the WCC model.

- Strengthen the linkages between the NWAC and the Total Catchment Management (TCM) Coordinating Committee particularly in areas of program evaluation and funding.
- Maintain wide stakeholder participation in the NWAC and retain it as the prime body for co-ordination and management of State noxious weed programs.
- Increase public awareness and action.
- Provide funding and resources to undertake weed control programs in urban and metropolitan areas.
- Ensuring that there are appropriate means for resourcing the program.
- Developing appropriate incentives for land managers to comply with their weed management responsibilities.
- Encouraging noxious weed control as an integral part of sustainable land management.

Under 'Resources' (Section 3), it is observed that the weed problem is so huge and extensive that attempts to determine priorities and allocate scarce resources have not worked.

The lessons from past experiences suggest an approach which:

- Recognises that in the current financial environment, additional significant resources are unlikely.
- Realises the total resources that are available and utilises these on focused programs by determining and setting priorities.
- Recognises that the State Government's role is to provide resources. With this in mind, this Report recommends an increase in State Government allocation of funds for the formation of WCCs and for urban and environmental weeds. The additional financial resources are recommended at around \$3 million.

It is recommended that the noxious weed programs are developed by:

- Undertaking a cost/benefit analysis with public good as the central criteria and identifying all beneficiaries.
- Ensuring all stakeholders are involved in the planning phases and that all necessary resources needed for an effective control program are identified and agreed to by stakeholders.
- Compile a list and develop action plans for combating the introduction of significant weeds which are present in other States but not yet established in New South Wales, particularly targeting species which

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*...the weed problem is so huge and extensive that attempts to determine priorities and allocate scarce resources have not worked..*

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In 'Prevention' (Section 4), we consider strategies for those weeds which are not present in New South Wales or to restrict the spread to other areas of the State, of those that are here. It is proposed that these weeds be identified and specific emergency response procedures developed and implemented.

The following strategies are recommended:

- Ensure that the Australian Quarantine and Inspection Service (AQIS) policies and procedures are adequate to minimise the risk of weed introductions into Australia.
- Support the implementation and funding of eradication measures under the Standing Committee on Agriculture and Resource Management (SCARM) Consultative Committee arrangements.

could be eradicated and for which there are clear community benefits in their exclusion.

- Prepare guidelines and codes of practice to facilitate the early detection and minimise the spread of noxious weeds in New South Wales.
- Improve information flow to Local Control Authorities (LCA) on emerging and potential weed problems.

- Foster research in weed biology, ecology, distribution and economics, to provide baseline information related to noxious weed issues.

**'Research, Education and Training' (Section 6)**, considers current research into weeds and the future role for the Cooperative Research Centres (CRC). The creation of the CRCs has focussed research funds, expertise and other resources to a degree that has not existed in the past. There is a need for industry to recognise the opportunities that CRCs represent in advancing knowledge of integrated weed management and weed science. Significant deficiencies in training of weed control officers in local government and land-holders have been identified with recommendations that training be upgraded for these key stakeholders.

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*...there is a need to reconsider the existing weed categories and the actions that are required for weed suppression and eradication.*

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The following strategies are recommended:

**'Weed Priorities' (Section 5)**, discusses in greater detail the need for prioritising and resourcing noxious weed programs. It is recognised that current demands for noxious weed control are beyond the limits of available resources. It is therefore recommended that regional weed committees review noxious weed declarations within their region to determine if present management actions are appropriate with adequate resources available. Improvement in the overall planning and implementation process is also discussed.

The following strategies are recommended:

- Prepare guidelines for noxious weed declarations that describe the method of cost benefit analysis and the required biological/ecological parameters.
- Revise the current list of noxious weeds using the new guidelines.
- Prepare detailed management plans for noxious weed control at all levels.
- Store core weed distribution information from LCAs in a central database.

- Foster weed research on ecology and integrated weed management.
- Establish competency standards for weed inspectors.
- Establish curriculums which address the needs of weed officers and land managers.

**'Legislation' (Section 7)**, examines the effectiveness of The Noxious Weeds Act 1993 and concludes that continuing changes are vital to support the Act's evolving functions which are identified in this Report. In particular, there is a need to reconsider the existing weed categories and the actions that are required for weed suppression and eradication. It is also essential to correct anomalies in State legislation which conflict with or confuse application of the Noxious Weeds Act.

The following strategies are recommended:

- Amend the Act to strengthen the emergency response procedures.

This is particularly needed for the provision of quarantine areas and the movement of risk materials to prevent spread.

- Undertake regular reviews of the Act, again, with public participation.
- Undertake a publicity program to increase the level of public understanding of the legislation, its implementation and enforcement regulations.
- Provide for noxious weeds control through community groups and individual landholders. This strategy has provision for community members to enforce legislation.
- Liaise with other government authorities, responsible for legislation which interacts with the Noxious Weeds Act, to develop guidelines and recommend legislative changes to overcome potential conflicts.
- Liaise with Local Government to include noxious weeds in their local environmental plans, and to report on noxious weeds on their state of environment reports.
- Liaise with other State and Government Departments to resolve conflicts and seek help in revision of the Noxious Weed Act.

'Other Plans' (Section 8), lists initiatives that have been developed in the planning and management of natural resources. The recommendations in this Strategy are consistent with these initiatives.

- Where possible, all noxious weeds management programs should complement other resource management plans.
- Establish liaison with other program managers in government authorities

to review and implement noxious weeds programs.

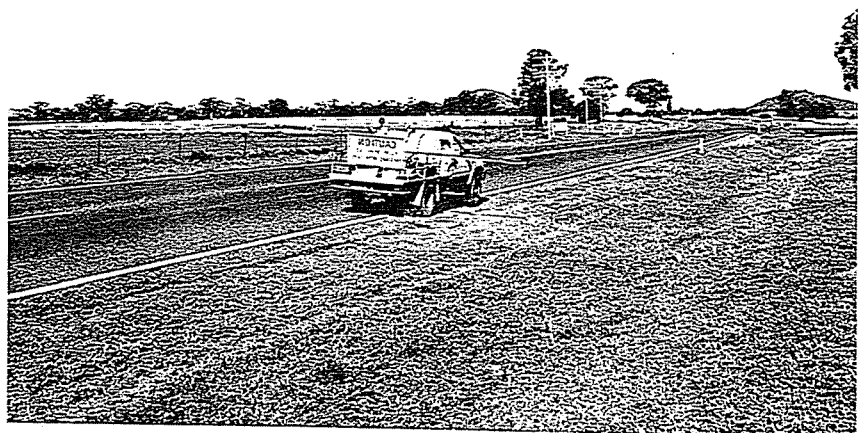
*A major deficiency at present is that there is no coordinated mapping of noxious weeds across the State.*

'Monitoring and Evaluation' (Section 9), discusses program indicators that will be required to measure success. A major deficiency at present is that there is no coordinated mapping of noxious weeds across the State. The extent and rate of the spread of a noxious weed is an important indicator in any eradication or control program. The importance of the development, review and subsequent evaluation process is emphasised. Core data collected by weed inspectors should be available and coordinated centrally to characterise weed distribution across the State.

Recommended strategies are to:

- Develop performance indicators.
- Develop procedures for the continuing monitoring and evaluation of the noxious weeds program. □

*Noxious weed control has often focused on roadsides because of the spread of weeds along such corridors.* Ⓢ



# The Value of Volunteers in Rehabilitating Urban Bushland

By Lynn Rees and Martin Smith

## Introduction

Urban bushland is a diminishing resource in terms of quantity and quality in the Sydney region. With the current trend in population growth and urban expansion, protecting and rehabilitating remnant bushland is increasingly important. The Sydney flora is one of the richest in Australia, with over 2,500 native species and over 500 exotic species threatening its diversity (Carolin & Tindale 1994).

edge ratios; essential service incursions; uncontrolled stormwater runoff; high nutrient loads and propagules present in stormwater; rubbish dumping; weed invasion from areas in the upper catchment; garden escapes; flooding; changes in fire regime; theft of native flora, fauna, wood and bushrock; over-use or misuse of bushland; domestic and feral animals; and administration by multiple land management authorities with different management aims and practices. These conditions encourage weeds to colonise and outcompete native flora.

## Survey results

Every week hundreds of Sydneysiders don a pair of work boots, hat and gloves and head off to meet likeminded people to rehabilitate remnant bushland. One of the major activities carried out by volunteers is the removal of environmental weeds in or adjacent to bushland.

In 1994/95 there were 4,787 volunteers working in 468 groups or individually in Sydney's bushland. Volunteers carried out 93,732 hours of work during the survey period, which is commercially valued at \$2,062,104. 64% of volunteer programs commenced in the last four years.

Local government is leading the way in volunteer bushland rehabilitation with 77% of councils which contain bushland in their municipalities managing such programs (by late 1996, 85% of councils were managing volunteer programs). Sydney's national park districts are relative newcomers to volunteer bush rehabilitation programs,

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*The Sydney region hosts an estimated 20-30% of the total naturalised flora of NSW.*

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## Environmental weeds

Volunteers in the Sydney region are predominantly engaged in reducing the impact of environmental weeds in remnant bushland. Environmental weeds have been variously described as weeds of bushland and plants out of place. The Sydney region hosts an estimated 20-30% of the total naturalised flora of NSW. Urban catchments are areas of high weed concentrations exceeding the average for the State. Environmental weeds can alter or permanently destroy ecosystems and modify species richness and abundance.

The management problems common to most remaining tracts of bushland in Sydney include fragmentation; isolation; high area to

becoming involved during the last two years.

### Volunteer activities

In 96% of programs, volunteers regularly undertake more than just weed control. They are also addressing the causes of the weeds, by investigating and tackling the impacts of stormwater runoff, nutrient enrichment and rubbish dumping, they are assessing the wider environment by undertaking weed mapping and site assessments, flora and fauna surveys, and are involved in the active management and administration of programs through 'friends of' groups and management/advisory committees.

90% of organisations actively promote their volunteer program. Given the dramatic increase in new volunteer programs and volunteer registrations in the last four years, extension programs are having the desired effect on the community.

### Geographic distribution of volunteers

The geographic distribution of the volunteer bushland rehabilitation effort across the Sydney region is very uneven, being concentrated in a small number of municipalities. Six councils, representing 17% of all councils with bushland manage over 75% of volunteer groups, over 70% of all volunteers, and their residents contribute about 50% of all volunteer hours.

### Discussion

The results of this survey indicate that increasing numbers of Sydney residents are prepared to actively contribute to rehabilitating bushland.

In a survey conducted by Tein McDonald, a Sydney bushland rehabilitation consultant (pers com. May 1996), it was estimated that in 1991, 1,000 volunteers were working in the bushland of Sydney's local government areas. Now with 4,787 volunteers, this represents over a 450% increase in volunteer participation in four years.

There was a 64% increase in new programs over the same period.

The six councils, representing 17% of all councils with bushland and which have 75% of volunteer groups (socio-economic reasons may explain this), contain a high proportion of the city's total urban bushland resource. Ironically, these six council areas are all based on Hawkesbury sandstone and contain a bushland type which is the most comprehensively protected and conserved vegetation association in NSW. It is also one of the most diverse native flora assemblages in Australia.

The remaining 29 councils manage the remaining 30% of volunteers. These more urbanised municipalities have much less of the bushland resource but paradoxically their bushland (e.g. Cumberland Plain Woodland, Eastern Suburbs Banksia Scrub, Castlereagh Woodland) is often under greater threat of degradation and contains plant associations and species not well represented in Sydney's national parks or conserved elsewhere.

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*Government and land managers cannot deny the significant contribution of volunteers in managing bushland degradation, controlling invasive weeds and in improving the quality of urban life.*

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These council areas, particularly on the Cumberland Plain of western Sydney, should be encouraged to strengthen their volunteer ranks in an effort to better control threats to their irreplaceable urban bushland remnants as well as seek funding to conserve them using professional labour.

Government and land managers cannot deny the significant contribution of volunteers in managing bushland degradation, controlling invasive weeds and in improving the quality of urban life.

The people of Sydney have displayed strong and growing involvement and commitment in

volunteering to rehabilitate degraded bushland. The long term success of their efforts are substantially dependent on government agencies meeting this increasing demand with appropriate resources and support.

### **Community bush regeneration program - Lane Cove National Park**

In January 1994, bushfires burnt 83% of Lane Cove National Park. A public Lord Mayors Bushfire Appeal and substantial sponsorship from Westpac provided the funding to create the Community Bush Regeneration Program, which began in May 1994.

The park received much media attention following the fires which motivated the community into action. Over 150 people volunteered to help rehabilitate the park. However, no infrastructure existed to manage these volunteers.

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*Approximately 25% of the park is severely degraded by weeds.*

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The Friends of Lane Cove National Park, (originally a small group of volunteer bush regenerators who had been working in the park for several years) was established as a community support group for post fire recovery.

The \$330,000 donated to the park was used to establish a formal volunteer program to undertake post fire bush regeneration over a three year period. The program is managed by two full-time staff.

**Park Description** The park comprises 400 hectares situated within a major bushland valley in northern metropolitan Sydney. It is a relatively long, narrow, highly fragmented area of bushland occupying 10 km along the Lane Cove River. The park is totally surrounded by urban development, with 2,000 residential and commercial neighbours.

Approximately 25% of the park is severely degraded by weeds. Based on today's commercial bush regeneration rates it would take in excess of \$15 million to rehabilitate these degraded areas. Substantial funding is also required for stormwater amelioration works throughout the park to help reduce the impact of weeds.

**Bush Regeneration** Urban weed control commonly involves managing many weed species (Lane Cove National Park has over 250 weed species). Bush regeneration is the process of rehabilitating native bush from a weed infested condition to a healthy plant community composed of native endemic flora.

**The Program** The program fosters the development of community involvement and education in restoring degraded habitats. In the two years since the program commenced, volunteer membership has grown to exceed 240, with people working in 26 groups throughout the park. Most groups work on a regular site chosen by themselves or by the program co-ordinator. Each site is approximately 1.5 hectares. Groups work on a weekly, fortnightly or monthly basis.

A nursery is also managed by staff and volunteers. Endemic plants to the catchment are grown for revegetation programs within the park.

The total expenditure to run this program for the two year period totalled \$223,000. The commercial value of these volunteer hours at \$351,538 represents a 157% return on investment. In today's economic climate, a return on investment of between 10-15 percent is considered good!

**Training** Community education is a high priority in the park. Volunteers have the opportunity to participate in regular workshops and training courses, including bush regeneration, weed ecology and weed identification, fauna identification and first aid. A quarterly



newsletter is provided with volunteer input. All volunteers attend a four hour formal introductory training workshop which includes topics such as principles of bush regeneration, catchment management, occupational health and safety, and weeding techniques. This workshop is followed up by regular field based training.

Volunteers are sponsored to undertake industry recognised training courses in bushland management with the National Trust, TAFE and community colleges.

Each group has a trained volunteer bush regenerator who acts as either trainer, co-ordinator or both, resulting in a highly trained and supervised volunteer workforce.

Neighbours in areas where volunteer sites exist regularly receive information on the program, and of the effects of human activities on the environment and how they can help reduce these impacts. This has led to greater recruitment of local residents and reduced common practices such as encroachments and dumping.

**Volunteer Benefits** Volunteers develop personal satisfaction from doing something positive to help the environment. They meet new friends with similar interests, have physical activity and are provided with all tools and equipment.

Volunteers have the opportunity to see first hand how the National Parks and Wildlife Service (the Service) manages its estate. Park management is firmly committed to fostering positive, ongoing relationships with the community.

The program development and ongoing management involves regular consultation with the Friends of Lane Cove National Park and the co-ordinators of each group. Volunteers have a high level of involvement in all levels of the program's planning and development.

**Benefits to the Service** This program has had a very positive impact on the local community and receives regular accolades from the public for its efforts in weed control.

The program has maintained a high media profile which has assisted with recruitment and promotion. Opportunities have been created for Service staff to appreciate the needs and expectations of the community and to develop a collaborative relationship to conserve our natural and cultural heritage.

Consensus decision making between staff and volunteers has been actively encouraged to assist in developing a community sense of ownership of the program in the post fire recovery of the Park.

The volunteer program complements and supports the overall District goal for weed management. This program provides opportunities for volunteers, staff, employment programs, students, the unemployed and Community Service Order workers to be actively involved in bush regeneration and other operational activities within the program and gain valuable work experience.

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*This program has had a very positive impact on the local community*

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## Conclusion

Park administrators recognise the limitations of its weed management program and that weed control by its staff is not enough to control weeds on the scale necessary to adequately protect its biodiversity. By giving full support to the Community Bush Regeneration Program and working collaboratively with the volunteers a significant impact has been made on reducing not only the weeds in the park but in many cases the causes of the weeds.

Whilst there is some evidence of the ecological impacts of environmental

weeds, little is known of their social and economic costs and effects in urban areas. In the agricultural sector, it is estimated that weeds cost Australia over \$3 billion per year in lost production and weed management programs.

Although a traditional bias towards agricultural weeds may still exist, changes in emphasis are needed to protect Sydney's biodiversity from environmental weed invasion. Adequate funding needs to be directed towards the effective management of environmental weeds in addition to the funds directed towards weed management for agricultural production.

For Lane Cove National Park, volunteers do make a difference!

## References

Carolin, R.C. and Tindale, M.D. 1994, Flora of the Sydney Region, 4th edn. Reed Sydney, p.8.

Rees, L.M. and Smith, M.G. 1996, The Value of Volunteers in Rehabilitating Sydney's Urban Bushland 1994/95 Survey Results, NSW National Parks and Wildlife Service.

*(Lynn. Rees and Martin Smith are with Lane Cove National Park and Cattai National Park, respectively. This article is based on a similar paper that they presented at the recent Australian Weeds Conference in Melbourne in early October). □*

# Goats ~ Can they fill a Niche in Weed Management?

**F**or some it has been a well known fact that goats can be an extremely useful method of weed control. For others it has been considered madness to introduce goats onto a property. Trials conducted by officers of NSW Agriculture over the past 15 years have proven that, if circumstances permit, goats do have an enormous role to play in the strategy of weed management.

as part of an integrated weed control program can increase that potential.

It has long been recognised that grazing animals differ in their diet preference, grazing pattern and grazing habit. What is important to graziers is that some plants which are not palatable to sheep and cattle, are indeed palatable to goats. As well, in many cases, goats are not actively selecting clover, making this valuable protein source available to other livestock.

Benefits of combining goats with sheep and cattle include:

- effective and efficient weed control,
- reduction of weed control costs,
- greater utilisation of plant material by complementary grazing, and a
- greater proportion of legumes assured for sheep and cattle through differential grazing.

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*What is important to graziers is that some plants which are not palatable to sheep and cattle, are indeed palatable to goats.*

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The main objective in livestock production is to achieve the full production potential of the ecosystem. This potential is decreased dramatically with the presence of weeds. Using goats

Goats effectively control weeds in three ways. First, by prevention of seeding. Second, by disadvantaging the weed by preferential grazing in the presence of a competitive species not highly sought by goats (e.g. clovers). Third, for some species, control is assisted by mechanical damage to the plant through bark stripping of stems or physically breaking branches as goats seek leaves higher on the plant.

There are a number of aspects which must be looked at before goats are integrated into a grazing situation.

1 The aim is to increase the density of desirable species or replace the undesirable species with desirable ones. As goats graze or browse undesirable species, the species not being heavily grazed (e.g. clovers) must be well equipped to compete with the undesirable species. This generally means that nutrient levels must not be a limiting factor of plant production.

2 The choice of animal species is important, along with stocking rate, species ratio and timing which will affect both animal production and botanical composition.

3 Grazing management. There will be periods through the year when set stocked goats with sheep or cattle will be directly competing for the same feed. The extent and timing of this will depend upon the weed species. Consequently, goats can be set stocked (acknowledging there is this period of feed competition) or rotationally grazed, where goats are placed in a paddock at the target time when grazing/browsing impact on the target species will be greatest. For example blackberry, Scotch broom and briar are preferentially selected by goats throughout the year, whereas with many thistles, goat grazing is mainly seen during the early rosette stage and then again at flowering.

A number of weeds have been investigated for control by goats. The

following are examples where control by goats has been demonstrated: acacia species (*Acacia melanoxylon*), artichoke thistle (*Cynara cardunculus*), blackberry (*Rubus fruticosus*), eucalypt trees (*Eucalyptus* spp.), gorse (*Ulex europaeus*), illyrian and Scotch thistles (*Onopordum* spp.), nodding thistle (*Carduus nutans*), poa tussock (*Poa labillardieri*), saffron thistle (*Carthamus lanatus*), Scotch broom (*Cytisus scoparius*), sweet briar (*Rosa rubiginosa*), variegated thistle (*Silybum marianum*) and a number of woody weed species.

There are plants which are not acceptable to goats. Although they are not particularly fond of sifton bush they do eat some green leaves and can cause substantial mechanical damage to mature plants. Other plants are Bathurst burr, budda, punty, bracken fern, cotton bush, caltrops, flat lily button, noogoora burr and turpentine.

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*There are a number of questions which must be answered before goats can be introduced to a property as part of a weed management strategy.*

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There are a number of questions which must be answered before goats can be introduced to a property as part of a weed management strategy.

- Do weeds reduce carrying capacity?
- Would the goats reduce weed control costs?
- Would the goats improve the gross margin of other enterprises?
- What is the value of any other goat products (e.g. meat, fibre or skins)?
- What capital outlay is required to introduce goats?

Producers, in consultation with their advisory officers, need to assess:

1. whether goats will eat the problem species,
2. how many goats would be necessary,

3. whether the pasture is dense enough to be competitive or capital can be allocated to improve it, and
4. if eradication is not possible, whether goats will be used as a long-term control measure.

There is also a checklist to run through before introducing goat.

- Check your attitude to goats - there is no point proceeding if your attitude is not positive.
- Investigate types of goats that can be run.
- Plan a program for introduction of new stock.
- Make sure that fencing and handling facilities are suitable for the chosen enterprise before the goats arrive.
- Develop a management program to follow.

As with all methods of weed control there are pros and cons that need to be weighed up. However, with proper planning and management, goats can play a significant role in the ever continuing fight against weed invasions.

For further information about goats contact Cameron Allan: Phone (063) 913951 or email: [allanca@agric.nsw.gov.au](mailto:allanca@agric.nsw.gov.au) "The Goat Manual" produced by NSW Agriculture is also a good source of information.

*(Reprinted from Weed Watch, the external newsletter of the Cooperative Research Centre for Weed Management Systems, Issue no. 2, Nov 1995 - Feb 1996). □*

## Insect Damage - Looking Good

Researchers at CSIRO Division of Entomology are excited about the results seen at their experimental site near Yaouk (NSW). The crown weevil, *Trichosiromus horridus*, was released

on nodding thistle at the site in 1993 and has established in high numbers during the last two years. The damage in infested plants is quite spectacular.

The larvae of the weevil chew around the top (crown) of the rosette causing the plant to send up smaller multiple stems with few flowers (as opposed to one large stem with many flowers) and under heavy attack they produce no stems at all.

The attack by the larvae makes the plant look like a dandelion! It reduces the prickliness of the plant and makes it much more attractive as fodder to stock. It is still too early to tell what level of damage over a broad scale these insects will create, however signs are very promising!

*(Reprinted from Weed Watch, the external newsletter of the Cooperative Research Centre for Weed Management Systems, Issue no. 1, June-October 1995)*

## St John's Wort - End of an Era?

The money for research into the biological control of St John's wort may have come to an end but the work is far from over. As is often the case in the past with biological control, once agents have been released and established at a few sites, and funding has come to an end, the agents are then left to spread naturally. But times are changing.

The importance of the distribution part of the biological control program is well recognised and great lengths are being taken to ensure that this occurs. This is the case with the St John's wort project. The Meat Research Corporation funded a 12 month project solely to ensure the redistribution of the latest agent to be released, the microscopic mite *Aculus hyperici*.

In October 1994 there were already 25 Weed Officers and 26 Landcare groups in NSW and 18 Catchment Management Officers; 5 Regional Coordinators and 20 Landcare groups in Victoria involved.

*St John's wort* (*Hypericum perforatum*) in flower and now subject to attack by the biological control agent, *Aculus hyperici*, a microscopic mite which can deform stems and shoots, leading to dwarfing of the plant and eventual death under prolonged attack. ☹

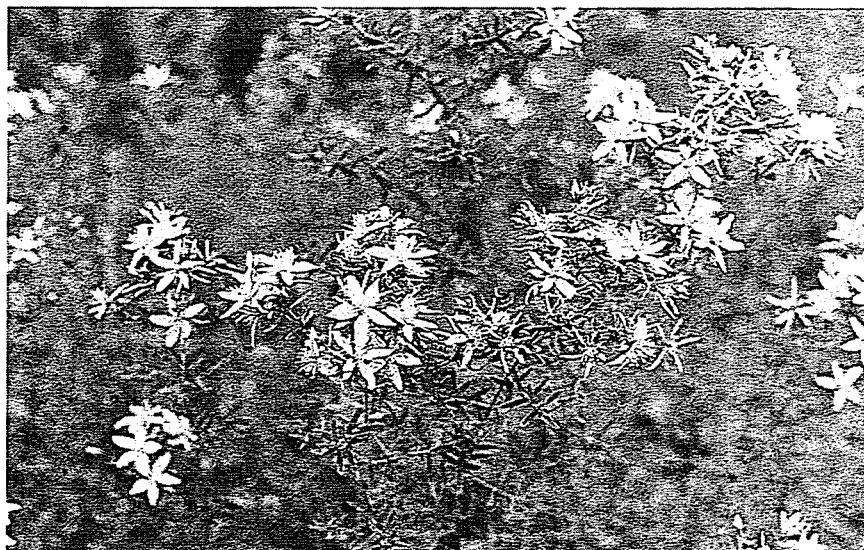
A management guide was produced titled 'Nursery sites of the mite (*Aculus hyperici*) for the control of *St John's wort* (*Hypericum perforatum*)'. A training kit with notes and slides on the program was developed for the use of people involved in extension work. Sites were required where mites could be released, monitored and regularly harvested to set up further sites. These are termed nursery sites and 120 of these were set up, 60 each in Victoria and NSW.

There were four main centres of distribution for the mites: KTRI (Frankston), CSIRO Entomology and NSW Agriculture - Yanco and Mudgee. Continual monitoring of these sites is essential and that will be conducted by those responsible for each nursery site.

To ensure continuation of this distribution program, Landcare groups and other individuals who are experiencing problems with controlling *St John's wort* are encouraged to contact their Local District Agronomist, Weeds Officer or Catchment Management Officer to obtain further information.

This has been a great example of how state and organisational borders can be crossed to ensure effective collaboration that will bring benefits to the country as a whole.

(Reprinted from *Weed Watch*, the external newsletter of the Cooperative Research Centre for Weed Management Systems, Issue no. 1, June-October 1995)



## Internet

### Addresses

For those of you who have access to the Internet, then here are some addresses which may be of interest to you.

heaps of coloured weed pictures at:  
<http://piked2.agn.uiuc.edu/weedid.htm>

jobs for weeds people:  
<http://www.nrcan.gc.ca/cfs/fpmi/weedjobs./weedjobs.html>

statistics on pesticides:  
<http://www.fao.org/WAICENT/FAOINNFO/economic/pesticid.htm>

pesticide interest:  
<http://www.apca.org/public/interest/interest.html>

on-line pesticide newsletters:  
<http://ipmwww.nscu.edu/cernag/newsletters.html>

pesticide information database:  
<http://ianrwww.unl.edu/ianr/pat/pestdata.htm>

shoppers guide to pesticide in food:  
<http://www.ewt.org/ShoppersShoppers.html>

aquatic (wetland) plants  
<http://aquat1.ifas.ufl.edu/>

CRC for weed management systems  
<http://www.waite.adelaide.edu.au/CRCWMS/weedies.html>

**Advertisement**

**CENTENNIAL PARK & MOORE PARK TRUST**

**WEED MANAGEMENT SERVICES**

**CENTENNIAL PARK, MOORE PARK AND QUEENS PARK**

**EXPRESSIONS OF INTEREST**

The Centennial Park & Moore Park Trust administers an area of land totalling 360 hectares. The areas of Centennial Park, Moore Park, Queens Park provide a range of landscape settings which enable Park users and visitors to pursue a diversity of leisure activities. The parklands are the most intensively used Urban Parks in Australia, catering for around 5 million visitors annually.

Expressions of Interest are invited from suitably qualified and experienced contractors interested in providing weed management services for areas of Centennial Park, Moore Park and Queens Park.

Stage 1 - will involve control of noxious weeds in parkland and remnant bush areas.

Stage 2 - will involve control of environmental weeds in parklands and remnant bush areas.

Following assessment of initial Expressions of Interest the appropriate applicants will receive the necessary information and documents for Tendering.

Expression of Interest background documents may be obtained from the Centennial Park & Moore Park Trust Administration Office, Corner Grand & Parkes Drives, Centennial Park at a cost of \$5. Inquiries may be directed to Mr Andrew Ferris, Manager Field Services, Telephone (02) 339 6603.

Completed Expressions of Interest must be lodged in the Trust's Tender box located in the administration offices, Centennial Park, by 2.00pm, Friday 15th November 1996.

# Weedvertising

As from June 1996, the Society is offering advertising space within *A Good Weed* to help offset newsletter costs and to assist with other communications activities of the Society. Current distribution is around 250 people in NSW, most of whom are focused on some aspect of weed management and/or research.

The rates for advertising in *A Good Weed* are:

(No. of editions in which advertisement is placed)

	1	2	3	4
¼ pg	\$100	180	250	310
½ pg	\$175	325	450	550
1 pg	\$300	550	750	900

Insertion costs for a folded single A4 brochure are:

\$200	400	550	700
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Please contact either John Cameron (02) 9489 2755 or Brian Sindel (067) 73 3747 for further details.



## Financial Note

Your Society is now an incorporated body, the financial year of which is 1 October to 30 September in the following year. In future, members of the Society will be invoiced following the AGM each year.



## Other Good 'Reads'

### *The Proceedings of the 11th Australian Weeds Conference*

This fine publication of the very recent Australian Weeds Conference in Melbourne (30 September - 3 October 1996) brings you up to date on Australian weeds research. All the oral and poster presentations are included in this one soft bound, almost 600-page volume. The contents include sections on weeds in cropping, rangeland, pasture, urban, and public lands and forests; managing herbicide resistance; novel approaches to weed management; and transgenic crops and weed control.

These proceedings are now for sale in hard copy and on CD ROM. The price for each is \$60 plus \$10 postage and handling. Available from the Weed Science Society of Victoria (to whom cheques should be addressed), PO Box 987, Frankston, Vic 3199.

### *Herbicide Resistance: It's your Move*

This video looks at both the bad news and good news about herbicide resistance. The video (14 mins) is suitable for individual or group use, and provides information on the problem of herbicide resistance and its management in the grain growing areas of Australia. It features comments by farmers and Dr Stephen Powles, Director of the CRC for Weed Management Systems.

The cost is \$20 (plus \$5 postage). Cheques should be made out to Primary Industries South Australia and sent to Ross Briton, Farm Chemicals Program, Primary Industries South Australia, GPO Box 1671 Adelaide SA 5001. Inquiries, phone (08) 8226 0587 or fax (08) 8226 1844.

### *1. Weeds: The Ute Guide*

A handy pocket-sized, go anywhere, use it out in the paddock, fully laminated weed identification guide. 108 pages in full colour, containing over 200 photographs detailing 95 common agricultural weeds. Cost \$15.

### *2. Topcrop Computer-Based Weed Identification Guide*

Available on CD ROM or floppy disks for your Windows based computer, the diskette set contains 70 weeds and the CD ROM contains 95 weeds with 'zoom in' capabilities. Both are available for \$27.95 each. The CD ROM version is also Macintosh compatible.

### *3. Topcrop Weed Management Kit*

This kit contains Weeds: The Ute Guide booklet, Weed Management Notes booklet, a Herbicide/Insecticide Compatibility Chart and the Weed Decide Calculator, which incorporates a slide rule that helps you calculate the cost of in-crop weed competition, and the profit arising from herbicide weed control. The kit costs \$20.

The above three items are available from Jay Cummins, Primary Industries South Australia, 9 Old North Road, Clare, SA, 5453. Postage and handling is \$7.50. For further inquiries contact Jay Cummins on (08) 8842 3900 or Fax (08) 8842 3775.

### *Agrow World Crop Protection News*

This twice-monthly newsletter provides coverage and comment on the international crop protection industry. It has a strong commercial focus, and covers areas such as conventional agrochemicals, biopesticides genetically engineered plants, company news, market developments, environmental and political issues, and research and development. Details available from Agrow World Crop Protection News, 18/20 Hill Rise, Richmond, Surrey TW10 6UA, UK, Fax +44 (0) 181 332 8998.

# *A Good Weed*

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