

VICTORIAN

# LANDCARE

Autumn 07 Issue 39

& CATCHMENT MANAGEMENT



## WEEDS FEATURE

Drought and weeds

Wildfire and weeds

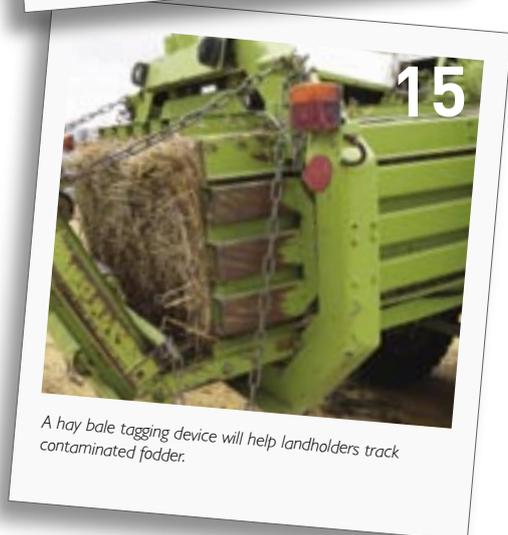
Weed control with sugar

Blackberry busters



# Landcare

AUTUMN 07 ISSUE 39



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Blackberry, by Kate Blood

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# From the editors

We hope you enjoy this special weed edition of the magazine. Weeds came up as the number one issue of concern in our recent reader survey and we have endeavoured to compile a broad range of useful stories about managing weeds.

The stories on weed management during drought and after wildfire will be especially relevant to many of our Landcare readers. At the time of writing it has just been announced that wildfires are no longer burning in Victoria after one of the longest and most severe fire seasons on record. We extend our thanks to all of those involved in the massive fire effort.

## International Landcare Conference

More than 900 delegates and dignitaries from over 20 countries around the world attended the International Landcare Conference in Melbourne last October.

The conference theme – Landscapes, Lifestyles and Livelihoods – saw a diverse and challenging program.

Delegates discussed topics including climate change, community strengthening, demographic change, regional development, traditional land management, partnerships, monitoring and evaluation and soil health, to name a few.

The exchange of technical information and experience was invaluable, but delegates were most enthused at meeting likeminded Landcarers from across the planet and being able to share their many remarkable stories.

For a free CD of the conference papers send your postal details to: ILC 2006 Papers



Spot the weed? Kate Blood was our special guest editor for this issue of the magazine.

request, Project Officer, Landcare & Community Engagement, DSE, 3/8 Nicholson St, East Melbourne 3002.

## Farewell Teresa Oppy

This is Teresa Oppy's last issue as editor and we thank her for her effort and persistence in helping to manage the magazine. Teresa has been working as a Project Officer for the Landcare and Community Engagement Unit of DSE. She has overseen the introduction of a new editorial advisory committee for the magazine, the latest reader survey and the magazine's redesign. Teresa is off to new opportunities in Canberra and we wish her all of the best for the future.

## Thanks to our guest editor

Kate Blood, Project Leader for the Weed Alert Rapid Response Team at DPI, joined the team for this special weeds issue of the magazine. Kate is an inspiring scientist and communicator with a huge breadth of knowledge about weed management in Victoria. She is also a very fine photographer and many of the wonderful images in this edition, including the cover, were taken by Kate. Thank you, Kate, for your valuable contribution.

## Victorian Landcare by email?

Would you like to read the Victorian Landcare magazine online?

To subscribe to receiving a link to new issues of the magazine go to [www.landcarevic.net.au/resources/magazinevic/news](http://www.landcarevic.net.au/resources/magazinevic/news)

## Next issue

Issue 40 of the magazine (July 2007) will look at the changing Landcare audience. The future challenge for Landcare groups will be to remain relevant and accessible to a changing rural demographic with an increasingly diverse mix of broadacre and intensive farmers, hobby farmers, lifestylers and absentee landholders.

We are interested in receiving stories and ideas on innovative ways for Landcare groups to be inclusive and to improve connections between urban and rural dwellers. The deadline for the next issue is Friday 11 May 2007.

Teresa Oppy and Carrie Tiffany



Maude Barlow from The Council of Canadians delivers a rousing speech about commodification of the world's water.



The mysterious Landcare Man answers the hard questions about Landcare on an expert panel.

# Letter to the editors

## Where have all the big ants gone?

As I sit back and think about the wonderful life I have had for the last 68 years, I think of the fun I had as a young boy in the bush and on the coast in the 1940s and '50s.

One of the biggest pleasures was poking a stick down the hole of a nest of jumper ants and watching them charge out in great numbers to defend the nest.

These terrors came in two colours; a blue-black all shiny variety, and a red variety. These were easy to find as they brought up the coloured gravel and sand from their excavations and built a mound of gravel around the nest entrance to run the water away from the burrow entrances.

I also remember enormous bulldog ants about 30 to 35mm long. They had massive jaws and a severe sting, so you had to treat them with respect. They lived in decaying tree trunks and usually had tunnels in the ground underneath the logs. Their eggs were long, brown hairy objects about 10mm long, laid between the log and ground. It was great to see them walking home with a grub or grasshopper four times their size, with apparent ease. They were very aggressive and nothing frightened them.

I once found a large Clydesdale I had recently bought, dead against a stump in which the bulldog ants had made home. The horse (all 900 kilograms of him) was swollen and bloated. I could not see why, until I tried to move him. The army swarmed out to take me on and I beat a hasty retreat.

I realise now that they played a major role in aerating the soil, transferring nutrients deeper into the soil and keeping pests under control. Where have they gone?

As we have moved our concrete and bitumen structures ever further afield, we have destroyed their habitat. Even I know that, but what about my own patch of bush? It has never been cleared, grazed or interfered with and they have still gone missing.

I don't use pesticides, disturb the environment or poke sticks in their holes anymore. Pressure on the ground from animal hooves, tractors and trucks must have an effect, but they are not factors in the bush. Perhaps it is natural evolution and the smaller and more adaptable species are taking over?

Is there a sinister message for us there? Is it too late to help this important part of our soil biology? Will this be yet another broken link in the chain of the environment?

Please, can someone tell me where the big ants have gone?

Jeff Clark, Poowong



Jeff Clark ponders his boyhood in the Victorian bush.

## Best letter

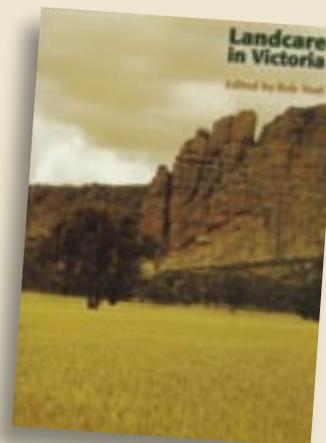
Jeff Clark wins this issue's book prize for his interesting letter. Jeff will receive a copy of *Landcare in Victoria*, edited by Rob Youl.

*Landcare in Victoria* is a collection of essays from government officers, Landcare community members, journalists and others involved in the development of Landcare over its 20-year history in Victoria.

Edited by Landcare stalwart Rob Youl, the book provides an insight into the political and operational basis for Landcare, and the various programs on which it drew. It also offers comments and ideas on Landcare's future directions.

*Landcare in Victoria* is available for \$24 per copy (including postage). Please send a cheque to Rob Youl Consulting P/L at 113 Nelson Road, South Melbourne 3205.

Please send your letters to Carrie Tiffany at the address on page two. Letters should be less than 300 words and may be edited.





A number of Erica species are Victorian Alert Weeds – the weeds of the future.

# How we are tackling weeds on private land

By Helen Anderson

Tackling Weeds on Private Land (TWoPL) is a \$9 million, three-year, Victorian Government initiative that seeks to encourage land managers to work collaboratively to manage weeds.

TWoPL works with five stakeholders whose activities significantly influence how weeds affect and are managed on private land: local government, linear reserve managers, catchment management authorities, the garden industry and the fodder industry.

Linear reserve managers like the Australian Rail Track Corporation, Pacific National and VicTrack have worked with DPI to develop industry standards for weed management along Victorian rail corridors. VicRoads is also taking weed management seriously, training staff and contractors in weed identification and hygiene procedures, updating mapping and completing trials on the management of Chilean Needle Grass.

Powercor is a leading example of how weed spread prevention practices can be incorporated into business operations by implementing vehicle hygiene procedures as part of their day-to-day planning and operations.

Local government plays a key role and over the past three years municipal councils have implemented 89 projects including: community education and awareness; weed spread prevention training; weed mapping and marker systems; development of weed hygiene protocols, planning guidelines and local laws. Total grants

of \$1.56 million have been matched by co-investment from local government of \$2.7 million.

The Nursery and Garden Industry Victoria is working together with DPI/DSE and the Royal Botanic Gardens, Melbourne to produce a booklet that will provide nurseries and the broader community with suitable alternatives to invasive garden plants. The *Grow Me Instead* booklet will highlight 20 to 30 invasive garden plants that are being promoted and traded within the Victorian garden industry and offer a suitable alternative.

The Australian Fodder Industry Association is working to increase quality assurance and awareness of weed spread prevention across the industry through a hygiene code of practice which will highlight weed threats and develop protocols to minimise weed spread. A hay bale tagging system is also in development to ensure contaminated bales can be traced to their place of origin. Hay buyers can favour loads that are tagged and traceable to reduce future weed contamination.

The Agricultural Contractors Association of Australia has been informing its members and the broader community on the importance of prevention of weed spread and has been conducting prevention and vehicle hygiene training sessions.

TWoPL has built on the momentum of a range of existing programs by lifting the profile of weed management as a core component of business operations. Through partnerships with key stakeholders, a range of new initiatives has

been developed to promote weed management responsibilities, share knowledge, build capacity and ensure integrated and co-operative approaches to preventing new weeds and managing existing problems.

## Victorian Pest Management Framework

The Victorian Pest Management Framework sets the direction for pest management within Victoria. DPI delivers key components of the initiative on behalf of DSE.

A mobile task-force has provided additional compliance support where land managers whose ongoing refusal to tackle weeds threatens the efforts and investment of the community and impacts on the natural or agricultural environment.

Some 18,167 hectares of land has been inspected for community-led programs on Gorse, Serrated Tussock, Ragwort and Blackberry.

To complement the DPI Weed Alert program, 100 retail plant nurseries in the Yarra Ranges, Cardinia and Nilumbik Shires have been audited for the presence of State Prohibited Weeds, one of the four categories of declared noxious weed.

During the audits, nine Bearskin Fescue plants were impounded and destroyed, one dead Horsetail was located and destroyed and two nursery owners were asked to withdraw 12 Lantana plants from sale. The audits also detected six Water Hyacinth plants that were seized and destroyed.

Information on weeds and the TWoPL initiative can be accessed from the DPI website at [www.dpi.vic.gov.au/weeds](http://www.dpi.vic.gov.au/weeds)



*The 2003/04 bushfires in eastern Victoria brought new weed species to the region and an increase in the number of infestations of existing weeds.*



Fires allow weeds to take hold. Planning ahead can minimise their impact.

# Wildfire and weeds

By Mark Farrer

The risk of weed invasion and its impact on farms and the environment dramatically increases during and after wildfire. The 2006/07 fire season brought higher than average wildfire frequency and intensity so it is timely to consider strategies that minimise the risk of weed invasion after wildfire.

The 2003/04 bushfires in eastern Victoria brought new weed species to the region and an increase in the number of infestations of existing weeds. The immediate impact of weed invasion after fire is not only felt in the burnt areas, but more widely throughout the landscape where weeds have been dispersed by vehicles, humans, fodder, stock and even water.

Fire creates two processes which can potentially increase the rate of weed invasion. It creates a window of opportunity for competitive exotic plant species that will take advantage of the extra light, space, nutrients and moisture caused by the absence of native vegetation, crops or pasture. Desirable species may also be vulnerable to impacts by pest animals such as selective grazing on new growth by rabbits.

The other process is the increased spreading of weeds by fire suppression, fire recovery, work and environmental events.

## Weeds are spread by: Fire suppression

- Fire ground vehicles carrying weed propagules (seeds, stems, bulbs, etc.) can spread weeds.

- Weed propagules can be dislodged or picked up on the fire ground and dispersed by vehicles and machinery such as bulldozers.
- People can accidentally spread weed propagules on their shoes and clothes.

## Fire recovery

- Weed propagules can be imported in fodder on to farms.
- Weed propagules can be blown from vehicles transporting fodder.
- Weed propagules can be imported on, or in, replacement or agisted stock.
- Weed propagules can be spread by vehicles and equipment of contractors/advisers undertaking work to replenish water supplies, rehabilitate fire breaks, clear fencelines and re-establish vegetation.

## Environmental events

- Weed seeds can be easily spread by water flow across bare ground during rain events. Once ground temperature gets over 170°C the organic matter vaporises and moves further down the profile to make the soil resistant to water. Higher run-off rates not only cause erosion and siltation of waterways but aid the dispersal of weed seeds further down the catchment.
- Desirable species seeds as well as weed

seeds may be blown from bare ground burnt by moderate intensity fire. This can leave some areas more susceptible to new weed invasions while others may have more weed seed deposited on them by wind.

## Natural and agricultural threats

Weeds spread like wildfire after a fire event. Experience in natural ecosystems shows the importance of integrated pest control immediately after bushfires.

The Victorian alpine fires of 2003/04 burnt large areas of exotic weeds that were posing a significant threat to forests and fragile alpine ecosystems.

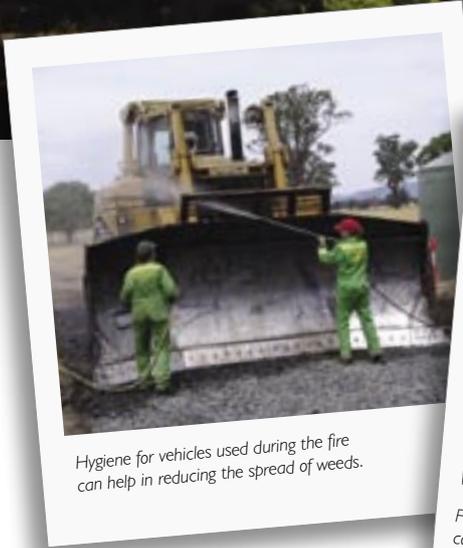
Weeds quickly re-established throughout the National Park and State forests after fires, often germinating more quickly than native species. The fires exacerbated the growth of opportunistic weeds such as English Broom (*Cytisus scoparius*), Blackberry (*Rubus species*) and St John's Wort (*Hypericum perforatum*).

Parks Victoria and DSE acted swiftly to gain access into areas to tackle these weeds. Extensive integrated control programs were undertaken with an emphasis on minimising the threats to key conservation values, infestations impacting on neighbours and eradicating isolated pockets that could be killed with follow-up work.

In areas of pasture fire intensity is an important driver of weed invasion after fire. Cool to



*Fire is not only a threat, but an opportunity for weed management.*



*Hygiene for vehicles used during the fire can help in reducing the spread of weeds.*



*Fire recovery will involve replacing fences to contain stock and exclude rabbits.*

moderate burns can see the survival of a proportion of desirable species while hot burns can see young and weaker perennial grasses destroyed. Very hot burns can see the soil virtually sterilised and all plant material, seed and topsoil organic matter destroyed.

These differing fire intensities will impact on the survival and successful re-establishment of desirable pasture species. The survival of desirable perennial pasture species and the degree of soil fertility such as nitrogen loss will determine management decisions on re-establishment of pasture and weed management.

**Wildfire weed management**

**Before the fire:** Prevention is better than cure. An absence of weeds and a strong healthy pasture is your first tool in providing the best chance for pasture recovery after fire. Your farm plan, or in the case of natural ecosystems, your natural resource management plan, should include a plan for managing weed invasion after fire.

Know where weed infestations are or have been (mapping), paying particular attention to high-risk areas. This can provide a quick response for surveillance, leading to management and prevention of the spread of weeds. Fire recovery can be a stressful time for victims, so pre-planning can be very helpful during bushfire recovery.

Your fire response plan can take into consideration the education of firefighters and

recovery personnel on how to minimise the spread of weeds through appropriate weed hygiene procedures. Knowing where and how to locate vehicle wash-down sites, establish fodder feed-out zones and stock containment areas will assist with minimising weed spread.

**During the fire:** If possible determine the intensity and duration of the fire. This helps predict where weeds might occur afterwards. Make fire management teams aware of where weeds are located. They may be able to move fire-lines and minimise soil disturbance if informed ahead of time.

Establish strategic vehicle and machinery wash-down areas for vehicles and machinery that are working in high-risk weed spread areas.

**After the fire:** Verify your weed mapping and step up surveillance for new weed outbreaks. Check the origin of your fodder. Has it come from a known weed infested site? Keep records of where fodder is purchased and feed out fodder in a confined area away from drainage lines to reduce the likelihood of weeds being spread.

Monitor the feed areas regularly and be suspicious of unfamiliar plants. Identify new plants early. When building up stock numbers or accepting agisted stock, quarantine them for 14 days allowing time for viable seed to pass through the animal. Check for weed seeds in fleece and continue to check for weeds in areas with new stock.

Monitor stock routes and roads for up to 12 months after fire to detect new weeds.

Ensure that the vehicles and equipment of agencies, contractors and advisers are clean and free of weeds before entering and leaving your property.

Increase integrated weed management – the first two years are critical. Revegetation work must go hand in hand with weed treatment. Control pests such as rabbits to ensure the success of revegetation.

To obtain further Information go to [www.dse.vic.gov.au](http://www.dse.vic.gov.au) and search for Pest Plant Notes or [www.dpi.vic.gov.au](http://www.dpi.vic.gov.au) and search for Information Notes Series.

# Blackberry busters in the north east

An initiative of the Upper Murray Landcare network, the North East Blackberry Action Group – Upper Murray was formed in early 2005 due to community concern about the spread of blackberry in the region.

Sixteen private and public land management organisations are represented in the group which is already celebrating its achievements as the winner of the 2006 State Weed Buster Award in the private land category.

Group chairperson Lyn Coulston attributes the success to the initial planning undertaken by the group, the commitment of the partner organisations and the communication skills of the project manager.

“Before we started we had a couple of sessions to come up with an action plan. This means that all the partners have ownership of the project and there are no unrealistic expectations about what we are trying to achieve. There is a benefit to the whole community if we can identify the barriers to successful control programs and work with landholders to find ways of achieving better management practices,” Lyn said.



Mulching Blackberry bushes in the Upper Murray to trial other treatments.

“We were able to get started with the initial DPI funding support and then add value to the project with other successful funding applications such as the National Landcare Program.

“We’ve found that the land managers often welcome the opportunity to speak to someone about difficulties they have implementing a successful control program. Our Project Manager, Damian Wall, has identified barriers, mapped the Blackberry infestations and negotiated a workplan with landholders in a single visit. Support is then available by phone until a follow-up visit to see how the work is progressing.”

The project negotiates a voluntary work plan with land managers to be implemented over a three-year period and supports them to achieve their goals. Blackberries are mapped on the private land, public land boundaries and adjoining roadsides. The maps are provided to the appropriate land managers so they can target future works programs to support the community effort. Sharing resources this way enables all land managers to be involved in a targeted control program that has very visible on-ground results.

Education and information sharing is also a significant part of the project. A chemical treatment demonstration site has been set up so landholders can see the results of different herbicides, timing and application rates. A forum has also been held to discuss biological control, demonstrate mulching techniques and provide control options for organic farmers.

The Victorian Blackberry Taskforce (VBT) is interested in the Upper Murray project as a pilot for weed management based on the community-led model. VBT Executive Officer Andy Wernert from DPI believes that the results so far reflect the willingness of the action group and landholders to work together.

“The local community is clearly interested in doing something about this threat to agricultural production and biodiversity in the Upper Murray. Because the project is delivered through existing networks it wasn't necessary to form a new group. The results after 12 months are outstanding.”

For further information contact Lyn Coulston on (02) 6072 7534 or Andy Wernert on (02) 6071 5307.



Upper Murray Blackberry Action Group representatives with their Weed Buster Award.



*The results so far reflect the willingness of the action group and landholders to work together.*



# Lobed Needle Grass alert

In 2001, Lobed Needle Grass (*Nassella charruana*) was listed on the National Environmental Alert List and in 2003 the Bureau of Rural Sciences listed it as one of ten priority agricultural sleeper weeds for Australia.

In May 2003, following a Victorian weed risk assessment, the species was declared a State Prohibited Weed – this is the highest category of noxious weed in Victoria, requiring eradication from the State, if possible.

Lobed Needle Grass is a large tussock grass growing to about 1m high that is native to Argentina and south-east Brazil. It is invasive and unpalatable to stock and can form dense infestations.

Lobed Needle Grass reproduces by seed, which are sharp and readily attach themselves to vectors including machinery, fur and clothing. Seed-infested topsoil is also likely to be a vector, if this is moved by earthworks or contaminated machinery.

Within Australia, Lobed Needle Grass is believed to be restricted to the northern outskirts of Melbourne, mainly within the

Darebin Creek catchment. It seems to prefer to grow in wet depressions but it will also grow on stony rises.

## Treatment

Infestations of Lobed Needle Grass are treated using spot spraying to kill plants before they set seed. Follow-up spraying of regrowth continues at each site to deplete the seedbank over time.

Burning may also be appropriate for dense infestations to remove dead growth. Follow-up spraying of germinating plants would then follow. Treatments are offered as a service to affected landholders by DPI, recognising that DPI has a delegated responsibility to eradicate State Prohibited Weeds under the CALP Act.

## Weed management hygiene

Staff and contractors involved in weed surveys and treatment are briefed prior to works on the importance of site hygiene. They are asked to inspect/clean their boots, clothing, tools and vehicles on exiting sites to prevent the spread of propagules. Landowners are asked not to disturb infestations or move soil from infested areas.

It is anticipated that areas of known Lobed Needle Grass infestation on the northern outskirts of Melbourne will be increasingly developed for residential and/or industrial purposes in the future. It will be essential for DPI to work with development companies to ensure weed hygiene protocols are used during the land development process and that any remaining seedbank is removed or buried on site.



Lobed Needle Grass seeds are easily spread by machinery, clothes and animals as well as in contaminated soil.

## Future action

The number of sites to be treated and monitored has increased substantially in the past year. Ongoing relationships between DPI and local municipalities are important for the detection and treatment of new infestations.

If you think you have Lobed Needle Grass on your property, contact Sarah Partington, DPI Project Officer – National Alert Weeds, on 5366 0034.

Further information on the identification of this weed is available at:

- National Alert List for Environmental Weeds, weed management guide (2004): [http://www.weeds.crc.org.au/publications/weed\\_man\\_guides.html](http://www.weeds.crc.org.au/publications/weed_man_guides.html)
- DPI, Victoria, Landcare Note series: [www.dpi.vic.gov.au/weeds](http://www.dpi.vic.gov.au/weeds)

# Weedstop through vehicle hygiene

By Kristy Roche



Vehicle washdown can help prevent weed spread.

Weedstop is a training workshop that covers weed biology and identification, reduction of weed movement through job planning, machinery and equipment inspection, industry legislation and record keeping and reporting.

Designed and initiated by DPI, the program focuses on the adoption of efficient and thorough vehicle hygiene practices to prevent weed spread.

According to Michael Moerkerk, Weedstop training officer, the course increases awareness into weed spread pathways by vehicles and machinery and provides practical techniques to minimise the risk of this happening.

“Understanding weed seed movement and hygiene practices within specific settings creates protection from new weed

infestations, as well as pest and disease introductions,” Michael Moerkerk said.

Weedstop has been adopted by a number of municipal councils, with shire environmental officers co-ordinating staff and contractors to undertake the training and then adopt the practices into everyday field work and management plans.

Weedstop is relevant for many industries where weed movement is possible, including farmers, shires and councils, earthmoving contractors, agricultural consultants, Landcare and friends groups, CMAs, hay and fodder contractors, stock contractors and Government agencies.

For further information contact the customer service centre on 13 61 86.

# A sweet end to weeds

By Margrit Beemster

Sugar has the potential to control annual weeds, according to recent research trials conducted by researchers from Charles Sturt University. The researchers, ecologists Dr Suzanne Prober (now based at CSIRO Sustainable Ecosystems, Perth), Dr Ian Lunt and Dr Kevin Thiele, have applied sugar to trial plots for a project funded by the NSW Environmental Trust on how to restore understory species in endangered grassy white box woodlands.

Trials on a private property, Windermere, and a travelling stock reserve, Green Gully, near Young in central NSW have provided dramatic results, with Paterson's Curse and Wild Oats flourishing in untreated plots while plots treated with sugar had far fewer annual weeds.

### Non-chemical alternative

The researchers have found that sugar provides a good, short-term non-chemical and ecologically friendly method of weed control.

"It appears sugar is a tool we can use to help change a system back to one dominated by native species rather than weeds," says Dr Suzanne Prober who has been working to conserve and restore grassy white box woodlands for the past 15 years. Nearly the entire woodland belt, from southern Queensland to north-east Victoria, is now used for agricultural purposes, principally wheat and sheep.

The sugar works because it is one of the fastest ways of reducing soil nitrate levels. Dr Prober compared soil nutrients in undisturbed woodlands and disturbed, degraded sites. She found the most striking difference between the two was in nitrate levels, which were extremely low in undisturbed remnants and high in degraded remnants.

"It seems that many of our weed problems are due to high nutrient levels," says Dr Prober.

"There is an enormous amount of information on how to increase soil nitrogen to improve crop growth, but very little on doing the reverse. However, there has been some research done overseas where sugar was used to tie up nitrogen levels for a short time."

### Sugar trials

The researchers, who spread half a kilogram of refined white sugar to each square metre

“

*The researchers have found that sugar provides a good, short-term non-chemical and ecologically friendly method of weed control.*

”



Control plot, which has had no burning or sugar treatments, showing a dominance of weeds and very poor establishment of Kangaroo Grass.



Where weeds were controlled with applications of sugar there has been good establishment of Kangaroo Grass.



*Drs Suzanne Prober and Ian Lunt in the sugar trials near Young.*

of soil every three months, found this inhibited weed growth of most annual weeds giving the native plants the opportunity to become well established. However, more research is required to work out the optimum rate of application.

“We realise that the sugar levels we used in our trials would not be economic to use over broad scales. But at the moment we don’t know if we would get similar results if we used less sugar or if we used cheaper alternatives such as molasses or sawdust,” Dr Prober said.

Dr Ian Lunt explains how sugar reduces soil nutrients: “When sugar is spread on the soil it feeds soil micro-organisms, which then absorb lots of soil nutrients as they grow. The micro-organisms then hold these nutrients so the weeds can’t gobble them up.

“In effect we are starving the weed species that require lots of nutrients to grow. The lack of nutrients stopped the weeds from growing large, allowing the native plants, which can grow well in low nutrient levels, to grow bigger and faster,” Dr Lunt said.

The trial plots are now in their fifth year and the researchers have found that as the native grasses they have sown have grown, the grasses have effectively locked up the nutrients in their roots, and this in turn has kept the weeds in check even after sugar additions have ceased. This highlights the importance of getting a dense sward of the right native species back in – ones that can suppress weeds in the long term.

### **Sugar as a restoration aid**

Dr Prober says that the sugar research is only part of the picture.

“There are a number of directions we would like to go. One of our students, Lisa Smallbone, has found that sugar helps us to reintroduce native wildflowers into degraded sites. Our long-term goal is to get the native diversity back into the understorey by working out the best method to re-establish a native ecosystem that is self-sustaining and resistant to invasion by weed species”.

Using sugar as an organic weed control, to help to restore endangered woodlands and native grasslands, is an innovative alternative to using herbicides.

According to Dr Ian Lunt, herbicides are difficult to use in many remnants because they kill the native plants as well as the weeds.

“Sugar does not have this undesirable effect. Herbicides also don’t reduce the soil nitrate as sugar does, which is the underlying reason for the flourishing weeds – they control the symptoms, not the cause. Sugar may also be a useful way to control weeds that grow near other endangered native plants.”

While the researchers are primarily interested in using sugar as a tool to help restore the understorey species in grassy box woodlands, they are aware their research could be the basis for other more agriculturally driven research.

“Broad-leaf weeds such as Paterson’s Curse are the bane of every farmer’s life. Once infestations get very bad, it is very difficult to control them.

“Sugar may help land managers to control broad-leaf weeds and to reintroduce perennial

grasses in many places across the region. In particular, it could be a really helpful tool in organic farming or in places where herbicides are difficult to apply,” Dr Lunt said.

For further information contact Dr Suzanne Prober at [suzanne.prober@csiro.edu.au](mailto:suzanne.prober@csiro.edu.au) and Dr Ian Lunt at [ilunt@csu.edu.au](mailto:ilunt@csu.edu.au)

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*Broad-leaf weeds such as Paterson’s Curse are the bane of every farmer’s life. Once infestations get very bad, it is very difficult to control them.*

”

# Be hawk-eyed for Orange Hawkweed

By Simon Martin



Orange Hawkweed in flower.

They threaten the balance of our environment, they cause untold problems in agriculture and can even threaten human health. The Victorian Government has responsibility for the eradication of State Prohibited Weeds, irrespective of where they might occur in the State.

Being able to locate and treat State Prohibited Weeds presents a very real challenge for DPI. This is evident in the Ballarat area when assessing Orange Hawkweed (*Hieracium aurantiacum* L.) sites. This weed can be spread by stolons (above-ground runners), by wind-blown seed or by people.

In the past Orange Hawkweed was sold in several retail nurseries. With large numbers of bright orange daisy flowers it is an attractive plant. Within the Ballarat area DPI has been able to identify six separate in-ground infestations of Orange Hawkweed. These sites vary from private and formal garden beds to newly colonised areas in which the weed has spread, such as nature strips. Known infestations are continually being monitored and treated.

Community education is the key to identifying infestations of State Prohibited Weeds. DPI is using the network of vigilant locals, called

Weed Spotters, to locate and identify State Prohibited Weeds. The weeds can then be treated and monitored by DPI.

Nursery and market stall inspections detect and then prevent the sale and trade of State Prohibited Weeds which helps to control the spread of the weeds by people. DPI set up its own market stall last December at Ballarat's weekend markets to increase awareness of Orange Hawkweed during its flowering period. Locals were able to alert DPI staff to possible infestations of Orange Hawkweed and to increase their own awareness of other State Prohibited Weeds.

Removing garden and nursery plantings of Orange Hawkweed removes sources of this serious weed before it escapes into farmland and the natural environment.

For further information on weeds ring 136 186 or go to [www.dpi.vic.gov.au/weeds](http://www.dpi.vic.gov.au/weeds)

More information on Orange Hawkweed is available at:

- National Alert List for Environmental Weeds, weed management guide (2004): [http://www.weeds.crc.org.au/publications/weed\\_man\\_guides.html](http://www.weeds.crc.org.au/publications/weed_man_guides.html)

# Wychitella targets Wheel Cactus

By Trevor Barker

The Wychitella Landcare Group and the Loddon Shire Council have declared war on a very prickly enemy – Wheel Cactus. Both parties are working together to prepare an action plan for the control and eradication of Wheel Cactus.

Wheel Cactus (*Opuntia robusta*) is a declared noxious weed in Victoria. Its control is seen as a priority by the community in the Loddon Shire because it has a significant impact on the economic, environmental and social values of the land.

It is a particular problem on rocky hills in the shire including Mount Kerang, Mount Egbert, Mount Hope and Beggary Hill, and the surrounding farmland and roadside reserves. Mount Buckrabanyule, just over the border in the neighbouring Shire of Buloke, also supports significant infestations of Wheel Cactus.

Wheel Cactus is a large perennial plant that can spread by seed or by segments of plant that root where they contact the ground. Plant segments can be accidentally

transported in machinery, equipment or vehicles, or are sometimes spread through illegal dumping of rubbish that contains plant segments. Seed can be eaten and dispersed in the droppings of birds and other animals.

The Loddon Shire Council will map infestations of Wheel Cactus and is committed to control the weed on road reserves and other Council-managed land.

The Wychitella Landcare Group has received a Second Generation Landcare Grant to purchase chemicals for Wheel Cactus control works. The Loddon Shire Council has purchased injector guns for use by landholders as trials have shown that injecting the Wheel Cactus with herbicide was the most effective control method.

A Wheel Cactus field day was held at Buckrabanyule in 2005 and with the recent boost in equipment, planning and enthusiasm as well as additional partnerships with the North Central CMA, DPI, Parks Victoria, Bush Heritage and private landholders it is

hoped that the prickly invader will finally be wiped out for good.

Trevor Barker is the Landcare co-ordinator for the Loddon Shire. He can be contacted on 5494 1247.



A group from Conservation Volunteers Australia and members of the Wychitella Landcare Group after a hard day's injecting.



A grooming machine was used to mulch the gorse.

# Gorse task force cleans up the Moorabool catchment

By Sharyn Williams

The development of strong partnerships between Landcare and Government has given 120 landholders the opportunity to improve over 3700 hectares of private land in the Moorabool River catchment.

During 2004/05 the Gorse Task Force (GTF), the Moorabool Gorge Recovery Project Committee and the Meredith/Bamgamie and East Moorabool Landcare Groups joined forces to provide private landholders with one-on-one weed control extension and on-ground weed control incentives.

The GTF is a community-driven weed control group that has been providing strategic direction to Government and the wider community to deliver on-ground Gorse control projects. The committee has a very close association with DPI and has been operating and delivering community services through State and Federal funding since its formation in 1999.

## Why Moorabool?

The Moorabool River catchment is on the Corangamite CMA's north-eastern boundary. Covering approximately 148,000 hectares, the catchment hosts a diversity of dryland farming with an influx of hobby farmers in recent years.

The major waterway of the catchment, the Moorabool River, is a high priority river for the

CMA due to the presence of significant flora and fauna species. The Moorabool River is also a valuable urban water supply to Victoria's two largest provincial cities, Ballarat and Geelong.

As the river meanders through the landscape the riparian edges vary from gentle slopes with open plains to inaccessible steep wide gorges. Together with uncontrolled stock access, pest plants – particularly Gorse, Willows and Serrated Tussock – are a major threat to this key community and environmental asset.

## Works underway

Beginning in May 2005 the GTF/DPI Rural Extension officer visited private properties within gorse control target areas developed by the Meredith/Bamgamie and East Moorabool Landcare Groups.

During property visits weed infestations were mapped and individual landholders were provided with advice on weed control options to improve both the productivity of their land, and enhance the riparian zones along their private water frontages.

Forty-three of the 120 properties had an actively growing Gorse infestation. Many landholders had very extensive infestations – the largest infestation mapped on private land exceeded three hectares.

All landholders were offered a 50% dollar incentive to undertake initial control options, with an agreement to continue follow-up works such as water frontage fencing and revegetation. Landholders without weed infestations were also offered incentives to fence and revegetate.

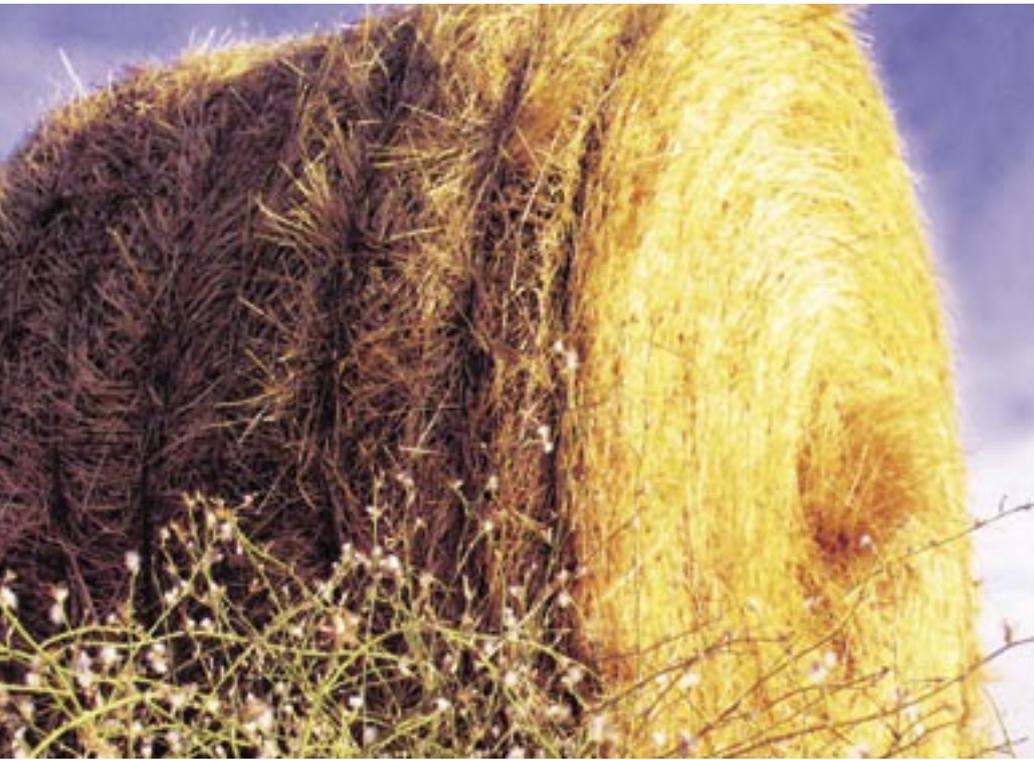
All landholders have voluntarily participated in the project, resulting in the treatment of 19 hectares of Gorse infestation. To date landholders have been provided with over \$13,000 of funding for weed control alone. This has seen the rehabilitation of almost 36 kilometres of water frontage along the upper reaches of the Moorabool River.

## Project successes

The project has significantly increased the communities' capacity to understand integrated weed control management. Neighbours are now working together to control weed infestations and re-establish native vegetation in what was once a deteriorating landscape.

Future plans are very positive with an additional two Gorse target areas planned for 30 kilometres of water frontage further downstream. These new areas face further degrading challenges from Serrated Tussock, rabbits, Blackberries and Willows.

For further information contact Sharyn Williams on 5336 6602.



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*Extreme dry conditions provide an ideal opportunity for weeds to establish in previously weed-free areas.*

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*Following fodder hygiene guidelines can minimise weed introduction and spread during drought.*

# Reducing weed risk

**Weeds pose a major threat to productivity and economical and environmental values of individuals and the community. Weeds can also provide an additional financial burden through lost production and the added cost of control after a period of drought.**



*During times of drought fodder is in high demand – even if it is contaminated with weeds.*

Weed-related risks are often overlooked during and after drought when the community is dealing with other pressing issues. It is usually some months later that it becomes obvious that the spread of weeds and the establishment of new weeds can be a costly legacy for the land manager.

Extreme dry conditions provide an ideal opportunity for weeds to establish in previously weed-free areas. During times of drought when there is more bare ground, weeds can take advantage of the lack of competition and will quickly invade large areas. It is essential that all land managers remain vigilant to ensure that the serious threat that weeds present to drought recovery in Victoria is addressed.

## **Introducing and spreading weeds**

During drought conditions farmers often buy in additional fodder for livestock or accept donated hay that comes from other regions or interstate.



A hay bale tagging device will help landholders track contaminated fodder.

# during drought

By Claire Norris

It is important to remember that introduced fodder may contain unfamiliar weed seed and material as well as the more common weeds.

According to Len Smyth from the Australian Agricultural Contractors Association (AACA) the sheer volume of hay being transported is an issue.

"There is always a risk of weeds being spread in hay. These risks are increased during drought due to the volume of hay being transported and the shift in priority from clean hay to any hay. We all have a duty of care to assist with the process of preventing the spread of weeds across Victoria," Len said.

"Fodder contractors may be travelling further than usual during times of drought and may travel through infested areas without realising it. Contaminated machinery has been known to transport weed material from one farm to another and spread weeds along roadsides."

The Australian Fodder Industry Association (AFIA) and the Australian Agricultural Contractors Association (AACA) are working collaboratively with DPI to develop a Code of Practice, a hay bale tagging device and training for members in weed hygiene procedures.

Dry conditions causing areas of bare earth can create an ideal environment for some annual broad leaf weeds that are opportunistic

colonisers such as Paterson's curse (*Echium plantagineum*). These weeds can spread quickly in such conditions and already infested areas should be monitored.

## Weed prevention tips

- Learn to identify weeds that may be a threat. Know the weeds in your area and the common weeds that exist where the purchased feed originates;
- Where possible, keep records of fodder content, location sourced, name of producer, date purchased, name of transporters and feed-out area location;
- Feed out in a contained area or in the same area each time. Ideally the area should be away from drainage lines and easily accessible. This will ensure that any infestation introduced is more easily detected and more manageable;
- Check your property, especially feed-out areas, regularly for new infestations. If detected, treat as soon as possible to prevent the weed from seeding. Treating early is the most cost and time efficient method.
- Where practicable, secure fodder loads during transit to avoid plant material blowing away. After drought, keep an eye on local roadsides to detect new weed infestations;

- Machinery used for cutting and baling hay in an infested paddock should be cleaned down before leaving the paddock. Ask contractors accessing the property to ensure that this is the case with their machinery;
- When an unidentified plant is detected, advice can be obtained from DPI;
- Know the species and the life cycle of the weed being targeted to ensure you select the appropriate management techniques;
- When purchasing new stock, consider quarantining for up to 14 days, purchase only shorn sheep and avoid moving stock through known weed infestations;
- Treat all new and existing infestations early and be sure to monitor all known infestation sites.

Early identification and treatment is the most time-effective and cost-effective method of weed control. Treating infestations before they become a costly problem is essential.

Many local government organisations have weed pamphlets available free of charge that identify weed species in their municipality. There are also many books available on weed identification techniques.

For more information contact the DPI Customer Service Centre on 136 186 or visit [www.dpi.vic.gov.au/weeds](http://www.dpi.vic.gov.au/weeds)



The Mallee CMA is employing farmers to undertake environmental works on their properties under the State Government's Drought Employment Scheme.

# Around the State – News from the

## **Glenelg Hopkins**

The Premier's Drought Task Force toured the Hamilton region in January and met with the Glenelg Hopkins CMA to inspect a stock containment area on the Moutajup property of Matt and Maria Crawford.

There has been a 100 percent take-up of State Government funding for stock containment areas in the region and the Glenelg Hopkins CMA is compiling a waiting list of interested farmers.

The task force also met with the first of the region's environmental works crews. The crews are working in the region on environmental and on-farm projects such as fencing, establishing of off-stream watering sites, stock containment and pest plant and animal control.

For further information contact Shelley Lipscombe on 5571 2526.

## **Corangamite**

The Corangamite CMA and the Landcare community are organising a forum to celebrate 20 years of Landcare in the region to be held in late March. Guest speakers include Joan Kirner, Tim Low, Peter Ellyard and Ros Casey.

It will be an opportunity to demonstrate our continuing commitment to Landcare in the Corangamite region and will recognise some of the fantastic work the community has undertaken with the support of various organisations.

For further information contact Polly Hall on 5232 9100.

## **Wimmera**

Thirty Wimmera Landcarers attended the 2006 International Landcare Conference, returning full of enthusiasm and high regard for the community contribution towards improved environmental outcomes.

*Mountains to Mallee* – a community river journey – will get underway at Mt Cole near Elmhurst on 17 March. Landcare and community members will walk, run or ride the 340km length of the Wimmera River finishing up at Lake Albacutya on the eastern edge of Wyperfeld National Park on 31 March.

Project Platypus farewells manager Emily Tyson who is heading overseas and welcomes Luke Scott into the project.

For more information contact Max Skeen on 5382 1544.

## **West Gippsland**

Landcare continues to support sustainable productivity across the region as well as protecting and enhancing biodiversity and improving water quality.

The massive Gippsland bushfire is affecting many landholders in the Maffra and district areas of the region and has added to the stress of the drought. Many of our Landcare volunteers are busy with Landcare and with their commitments to their local CFA branches. All in all this is shaping up as a long and testing summer season for many people across the region.

Our co-ordinators and facilitators continue to

work with Landcare members. They too are shouldering extra demands due to drought and fires. What we really need is a solid three to four inches of soaking rain!

For further information contact Phillip McGarry on 5662 4555.

## **Port Phillip and Westernport**

Work is underway on developing a series of Landcare notes on group development. The notes will provide entry-level information and leads to help start, run or develop a Landcare group. They will cover governance, fundraising, personnel recruitment and management, planning, group operations, risk management and promotion.

The set of more than 60 notes is expected to be completed during the second half of 2007.

The newly formed Yarra Ranges Landcare Network has welcomed Katie Brown as their inaugural co-ordinator. This network is also involved in a pilot project aimed at building the capacity of Landcare networks to become more effective and more influential in landscape change.

For further information contact Doug Evans on 9296 4662.

## **East Gippsland**

Landcare in East Gippsland has shifted focus over recent months with efforts being put toward managing the impacts of natural disasters.

Drought support measures were put in place to assist the region's primary production industry and December 2006 brought a new challenge when lightning strikes sparked numerous fires

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*Drought has been a primary concern for groups and networks in the region this summer. Much of the region has only received around one-third of annual rainfall for 2006, resulting in significant losses to revegetation plantings.*

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*The Goulburn Broken Landcare Annual Performance Story showed great achievements with weed control.*

# Regional Landcare Co-ordinators

across the region's forested country.

The fire threat disrupted many Landcare functions and since this time communities have rallied to support each other against the fire threat. Many Landcare staff have also been lending their support to the fire effort, fulfilling important roles within incident management teams.

There's no doubt there will be ongoing recovery and rehabilitation works when the fires eventually go out.

For further information contact Darren Williams on 5150 3575.

## **Goulburn Broken**

Goulburn Broken Landcare released its first Annual Performance Story for 2005/06. Highlights for the year included 115,000 trees planted, 5020 hectares of weeds controlled, and 62,100 hectares treated for pest animals, involving 86 Landcare groups, 9200 participants and over 33,000 in-kind hours. There were 290 meetings and 132 field days held, as well as 63 media articles and 25 radio and television interviews.

For a copy of the Annual Report Card, which includes a foldout map of Goulburn Broken Landcare groups, contact Chris Burnett on 5736 0100.

## **Mallee**

As part of the State Government's \$10 million Drought Employment Scheme, the Mallee CMA in partnership with the Mallee Regional Landcare network has secured \$800,000 in funding to employ landholders to complete environmental projects. Local members of the

farming community have worked on fencing of remnant vegetation, native seed collection and weed control works on private and public land.

Peter Bull and his son Lee are wheat and sheep farmers from Ultima and members of the Ultima Landcare Group who are currently employed by the CMA on fencing remnant native vegetation on their property. They have established large stands of Old Man Saltbush on their farm that provides both biodiversity value for birds and insect life along with grazing and shelter for their sheep.

The program is exceeding expectations and has been well received by landholders.

Peter Bull said it is a very good CMA program.

"My son and I get to work together to provide income for the family, after a disappointing, drought-affected year in 2006. And we are protecting important Mallee native vegetation for future generations to enjoy," Peter said.

For more information contact Brendon Thomas on 5051 4385.

## **North Central**

A celebration of 20 years of Landcare was held last October at Kerang involving 14 Landcare groups in the Gannawarra Shire, the North Central CMA and the general community.

Almost 70 people attended the opening of the Ibis Rookery Redevelopment – a major undertaking by local Landcare members who have handled the project from the initial concept, to planning, seeking funding and implementation.

The announcement of Envirofund sees 28 projects totalling \$520,000 to be implemented across the catchment over the coming months. NLP innovation grants were also successful with three projects worth close to \$200,000.

Landcare groups in North Central will be gathering information for the annual report card in the coming months to showcase Landcare's achievement in natural resource management.

For further information contact Allison Long on 5440 1814.

## **North East**

Many local Landcare members and co-ordinators attended the International Landcare Conference in Melbourne last October and enjoyed the broad range of sessions and inspirational stories from around Australia and overseas.

Drought has been a primary concern for groups and networks in the region this summer. Much of the region has only received around one-third of annual rainfall for 2006, resulting in significant losses to revegetation plantings.

Many groups and networks have been refocussing their efforts on working with service providers to provide drought information and planning sessions across the catchments. A number of successful information sessions and mini expos have been held so far, with speakers from DPI, Community Health, Rural Counsellors, Local Government and Centrelink. More sessions are planned for the rest of summer and autumn.

For further information contact Tom Croft on (02) 6043 7600.

# Kaluna Park – from weedy jungle to red gum oasis

The Wangaratta Urban Landcare Group has been tenacious in its efforts to control garden escapees on public riverside reserves in Wangaratta.

Members have found successful control techniques for over 80 introduced species, virtually all garden escapees, with some sites being worked on since 1995.

The Landcare Group has been working with the Rural City of Wangaratta and the North East CMA to protect and enhance sites along the Ovens River, King River and One Mile Creek. The group was recently awarded the Public Land section of the 2006 Victorian Weed Buster Awards for the significant improvement it has made to these sites.

Kaluna Park, a reserve alongside the Ovens River, was once impenetrable and weed-choked but is now an oasis of River Red Gums and native riparian understorey species.

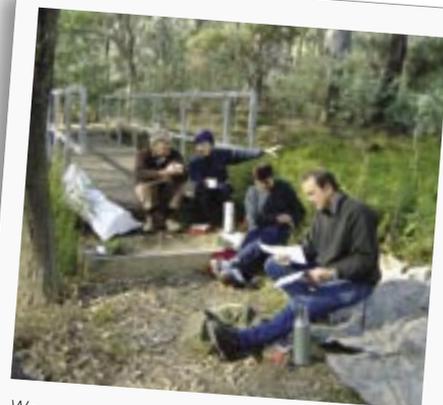
Weekly working bees by dedicated group members and continued liaison with and support by Rural City of Wangaratta and North East CMA have been the basis of these achievements.

Working on such a wide range of species, from creepers and climbers through large woody weeds, has brought many challenges to the group. Add to this the difficulty of using herbicides in areas prone to flooding, and weeds that do not respond to herbicides suitable for these areas, and you can begin to understand the effort required.

According to Peter Curtis, president of the Wangaratta Urban Landcare Group, some weeds have required major equipment such as excavators to remove.

"Our partners came into play for the large-scale work. Most other weeds have been managed by hand, including manual cutting, spraying and also chemical-free methods," Peter said.

"We have had to trial a number of herbicides and wetting agents to treat some difficult species, particularly Periwinkle (*Vinca major*), Trad (*Tradescantia fluminensis*), and Ivy."



Wangaratta Urban Landcare Group members plan their work at Kaluna Park.

Black plastic and solar energy instead of herbicides have been used extensively on Trad infestations. The plastic is placed over the weeds in summer, effectively cooking the plants.

"This means we do not need to use herbicide in sensitive riparian areas, and a bonus is that some native plants germinate shortly after removal of the plastic," Peter said.

The long-term efforts, trials, and careful record keeping by Helen and Peter Curtis will soon translate into a guide for other groups. Helen and Peter are writing a book on identification of riverine plants with notes on successful treatment techniques for common weeds.

For further information contact Peter and Helen Curtis on 5721 8937 or go to <http://northeast.landcarevic.net.au>



The noxious weeds list in Victoria is being reviewed including the status of Ragwort.

## Victoria's noxious weeds under review

By Ryan Melville

For the first time in 30 years the Victorian noxious weeds list is being reviewed. The review will be looking at the current list of weed species as well as potential new weed species.

The noxious weeds review is a co-operative effort from DSE, DPI, CMAs and the Victorian Catchment Management Council. Local communities have provided input to their CMAs on recommendations for any changes to the list.

The review will be the first time a scientific, evidence-based approach has been used to assess the potential risk and impact of invasive plant species on Victoria's social, economic and environmental values.

One principle adopted at the beginning of the review process was that no species would be removed from the noxious weeds list at this stage.

The first stage of the review will focus on the current list of weed species. Further stages will look at weeds identified through the CMAs Regional Weed Action Plans, plants nominated by the garden and nursery industry, the National Environmental Alert List, Weeds of National Significance and plants nominated by the wider community.

Further information is available from Victorian Resources Online at [www.dpi.vic.gov.au/vro/weeds](http://www.dpi.vic.gov.au/vro/weeds) or by calling the customer service centre on 136 186.

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A community weed facilitator employed by the Omeo and Benambra Landcare Groups has proved to be a driving force in the weed control campaign.

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Community weed facilitator Colin Sedgman, and Cathy Allen from Parks Victoria, collect large quantities of twig mining moth larvae in NSW to accelerate the introduction of this bio-control agent in Victoria's high country.

# Helicopters, facilitators and twig moths in the high country

Weeds in Victoria's high country are being attacked by humans, insects and helicopters as part of an integrated weed control campaign. Aerial spraying, the release of bio-control agents and widespread community education are hallmarks of a campaign underway around Benambra, Omeo and Dinner Plain.

Parts of the Omeo and Benambra district, including the Alpine National Park, have considerable infestations of English Broom – much of it located in inaccessible forests.

Public and private landholders are working together to control broom and other weeds through a project funded by the Victorian Government's Second Generation Landcare Grants, through the North East CMA.

## Air attack

The Omeo and Benambra Landcare Groups, landholders, Parks Victoria, VicRoads, DSE, DPI and Goulburn Murray Water are also involved. Due to the rugged terrain in the area, co-ordinated helicopter spraying is a key

control tool being used by private and public land managers.

While the 2003 bushfires were devastating for the area, they also created new opportunities for weed control.

"The burning of large areas of heavy English Broom infestations on private and public land opened up access to some areas for the first time in years," explained Tom Croft, Landcare team leader from the North East CMA.

"Land managers have been making the most of this opportunity, spraying large areas of broom regeneration, with complementary works on Crown and private land."

## Community facilitator

A community weed facilitator employed by the Omeo and Benambra Landcare Groups has proved to be a driving force in the weed control campaign.

Colin Sedgman has assisted landholders with many issues, including addressing the potential

weed legacy arising from the delivery of emergency stock fodder donated and brought into the area after the 2003 fires.

Colin has also organised weed information brochures and run identification sessions for landholders, worked to establish and maintain English Broom bio-control nursery sites, with additional releases of the twig mining moth (*Leucoptera spartifoliella*) in the area, arranged annual bulk chemical purchases with neighbouring Landcare Groups and co-ordinated weed education and information sessions with other agencies.

Colin is now the first point of contact for landholders on weed and land management issues, an important role with the limited agency support available in the area.

The concept of a co-ordinated, community weed facilitator has been promoted to and taken up by other groups in the region, further highlighting the effectiveness of the approach.

# Victorian Alert Weeds

Victorian Alert Weeds are the weeds of the future. They pose a serious threat to Victoria's agricultural and natural assets and may affect human health.

by Richard Plant



Chilean Rhubarb is seen in gardens and ornamental ponds.

“  
The vine grows so aggressively in South Africa it has developed the reputation as a tree strangler and spells a real danger for our native forests.”

Some of these weeds are thought to be naturalised in small numbers in Victoria and are eradicable from the State, while some may occur only in gardens, or have not yet reached Victoria but present a huge threat if they were to arrive.

## Chilean Rhubarb

Chilean Rhubarb (*Gunnera tinctoria*) is an invasive garden plant. It has a very distinctive appearance with 1m long flower spikes and leaves up to 2m across.

Chilean Rhubarb harks back to the days of the dinosaurs. Popular with gardeners who prefer something a little different alongside their stream or pond, Chilean Rhubarb is the weed of choice if you're after dramatic foliage. Planted mostly in boggy areas as it requires an abundance of water, a thrifty gardener need only purchase one – as each plant can produce 80,000 seeds or more each season. A very small, easily dispersed seed means streamside banks are quickly colonised by this thirsty giant.

Growing up to 2m in height the plant can quickly overshadow fragile native vegetation, often restricted to pockets along streamsides. Leaves and stems of this plant look very similar to the Common Rhubarb but are as rough as sandpaper, making them unpalatable to stock.

## Identification

Chilean Rhubarb is a herbaceous plant, with strong, stout roots. Leaf stems can grow to 1m or more in length, are rough to touch, and covered in small red prickles. The stems contain symbiotic bacterium, enabling the plants to fix nitrogen and grow in nutrient-deficient soils.

Chilean Rhubarb can support three or four flower spikes up to 1m in height. The flower spikes are conical and studded (like a mascara brush) and covered with thousands of tiny red/brown flowers. Flower spikes remain intact and do not die off over winter making the seasonal transfer to reproduction very rapid. Red/orange berries develop at the ends of flowers and are popular with birds. Plants can reproduce by seed, stem fragments or root cuttings so all parts of the plant must be destroyed.

## Why is it a problem?

Chilean Rhubarb is native to the high rainfall temperate forests of South America (Brazil and

Chile). Infestations in New Zealand arose from garden escapes. The weed is now widespread across the steep coastal cliffs on both the North and South Islands of New Zealand, forming large clumps and shading out all other species. Control works involve abseiling down the sides of cliffs to spot spray individual plants – a laborious and dangerous task.



The huge leaves and flowering spike of Chilean Rhubarb make it an interesting garden plant, but it is still a dangerous weed.



The pretty flowers of the Pereskia are in contrast to the nasty spines of this invasive climbing cactus.

Chilean Rhubarb is yet to establish as a weed in Victoria, best estimates suggest it would favour the cooler temperate forests of eastern Gippsland and the Otways. It may also persist along waterways throughout much of the State.

Chilean Rhubarb is commonly sold in nurseries – often mistakenly sold as a closely related species – the Giant Rhubarb.

### Leaf Cactus or Pereskia

Leaf Cactus or Pereskia (*Pereskia aculeata*) is an attractive and highly unusual leaf-bearing cactus plant – popular for its pretty, lemon scented flowers, edible fruit and creeping growth form. Hidden away under the leaves are hundreds of dangerous long sharp spines helping it to hold on whilst creeping towards the canopy.

The vine grows so aggressively in South Africa it has developed the reputation as a tree strangler and spells a real danger for our native forests. Producing attractive berries after an abundance of flowers, the Leaf Cactus is easily spread by birds. A devastating weed in coastal South Africa, Pereskia needs only to be introduced to natural areas in Victoria for it to strangle a eucalypt forest.

### Identification

The young shoots are vine like, growing as a creeper, and have pairs of spines along their length (similar to those of roses). Adult stems can grow to 10m in length and become woody as they age. Spines on the adult stems are different to those of the shoots. Spines are 30mm long, branching from a central core with 15 -20 spikes protruding. Leaves are egg shaped, bright green and glossy. Leaves are picked, cooked and eaten in its native Central and South America.

Pereskia produces a mass of white rose-shaped flowers with a strong lemon scent. Small fruit develop after flowering and are green, spherical and covered in mini, yellow-coloured leaves. Each fruit contains a single seed, 4-5mm in diameter, easily released and readily germinating. Roots are hardy and extremely drought tolerant.

### Why is it a problem?

Pereskia exhibits all the characteristics of a nasty weed; drought tolerant, prolific seeds which are easily dispersed, able to sprout from mere fragments of leaves, stems or roots. Added to this there is no registered chemical for control, sharp spines make mechanical control difficult and all parts of the plant must be killed in order to remove an infestation. Pereskia is a weed we definitely don't want to encourage.

Pereskia is native to Central and South America and has now spread its range to the USA, China and South Africa – all associated with garden escapes. It exists as a devastating weed in temperate coastal areas of South Africa where its spiny stems make it a popular security fence.

Pereskia favours not only disturbed sites, but will readily colonise native and plantation forest canopies, smothering much larger trees and eventually overpowering them. Pereskia is restricted to only a few garden escapes in Queensland and New South Wales and is not known to have naturalised in Victoria. Pereskia is still sold in nurseries throughout the State and Weed Alert contact officers are encouraging its removal from sale.

If you suspect you have found examples of either Chilean Rhubarb or Pereskia, please report it to your local Weed Alert contact officer on 136 186.

## Weed security will save landholders millions

DPI has embarked on a \$3.6 million, four-year project aimed at minimising the risk of the introduction of new weeds into Victoria. The project is called Improving Provincial Victoria's Biosecurity.

Project Manager Mark Farrer says research has identified three landscape uses within the State – amenity, production and transition.

“One of the most significant transformations taking place is the expansion of the new urban lifestyle (amenity) regions with a growing demand for rural living,” he said.

“The interface between provincial urban cities and the amenity region is a key to preventing the introduction and spread of new weeds into provincial Victoria. Many of these new weeds are garden plants that can escape to become serious weeds.”

This project will work with communities and industry in high risk provincial regions to reduce the threat of the introduction of Victorian Alert Weeds. These municipalities include Wodonga/Indigo, Ballarat, Greater Bendigo and the Moorabool-Greater Geelong-Surf Coast region.

The current phase of the project is focussing on research into the potential distribution and impact of new weeds and how they may affect all landholders or land managers.

Analysis of the impacts of five Victorian Alert Weeds has found that intensive surveillance and preventative action, taken now, could save up to \$11 million within 20 years.



Urban lifestyle properties in high risk provincial areas of Victoria are the target of information on new weed threats.

# In brief



## **Under Control**

*Under Control* is a free, tri-annual newsletter that provides accurate, up-to-date information on pest management programs and issues in Victoria, with the main emphasis on weeds.

An easy-to-read, yet scientific publication, *Under Control* includes information about pest research, development and management work. Projects undertaken by DPI Victoria and the Co-operative Research Centre for Australian Weed Management are a particular focus.

*Under Control* is available in hard copy or by email as a PDF file. It can also be found on the DPI website at [www.dpi.vic.gov.au/undercontrol](http://www.dpi.vic.gov.au/undercontrol)

To subscribe please contact Susan Curnow on 5336 6879 or by email at [susan.curnow@dpi.vic.gov.au](mailto:susan.curnow@dpi.vic.gov.au)

## **Over the garden and far away**

The Weed Society of Victoria is holding a seminar on community weed action in Upwey on 19 April 2007.

The seminar will consider what problems community groups are facing in attempting to clear an area of weeds and what they can do to ensure it doesn't become a sea of weed seedlings but an area of restored bush. It will also cover what is a declared weed, what are environmental weeds and what weeds require mapping and controlling.

For further information contact Ros Shepherd on 9576 2949 or by email at [secwssv@surf.net.au](mailto:secwssv@surf.net.au)

## **Forums for Pest Plant and Animal officers**

A forum of the Pest Plant and Animal Committee of the Victorian Landcare Network was held in Melbourne late last year. It was a rare opportunity for the officers to meet with each other and to hear presentations from DSE staff who also work on pest plant and animal projects.

The mix of officers employed by local government and Landcare groups were introduced to the Tackling Weeds on Private Land initiative, and various DPI enforcement and compliance initiatives that can link effectively with existing Landcare community weed control projects. Paul Crock from Animal Control Technologies also attended and presented the latest developments in fox and rabbit control.

The Victorian Landcare Network plans to hold another forum this year. Please contact Matt Stephenson on 5951 3327 for further information.

## **Earth Wind Fire Water & Weeds Conference**

The Weeds Society of Victoria is holding its 3rd Biennial Victorian Weeds Conference in Bendigo from 3-4 October 2007.

The conference theme highlights the elements as they relate to weeds and may include such topics as climate change, geospatial technology, global issues, national, State, regional and local planning, spray technology, wind dispersal, fire as a tool, post-fire recovery, aquatic weed management and water catchment health.

Register your interest in the conference by emailing [secwssv@surf.net.au](mailto:secwssv@surf.net.au)

## **Weed spotters spring into training**

The Victorian Weed Spotter Network is now up and running. Introductory training sessions were held in over 20 locations within the Port Phillip, Corangamite, Goulburn Broken and North East catchments. Sessions involved presentations on what volunteering to be a Weed Spotter involves, advice on weed surveillance and identification methods, and a display containing some of the potential, new and emerging weeds which Weed Spotters are asked to be on the look out for.

More detailed technical sessions were also held in some regions with Weed Spotters being trained in plant biology, taking field notes, hygiene, plant pressing and submitting herbarium samples. As the network expands in the coming year, both the introductory and the technical skills sessions will be held in all catchments across Victoria.

Information for prospective and registered Weed Spotters is available at [www.dpi.vic.gov.au/weeds](http://www.dpi.vic.gov.au/weeds)

## **CaLP Act changes back-up community effort**

Changes to the *Catchment and Land Protection Act* (CaLP) include two new types of notices that can be issued directing landowners to control regionally prohibited weeds, regionally controlled weeds, and established pest animals.

The new notices can be directed either to all landowners in a priority area or to a specific landowner.



Gorse and Montpellier Broom are both declared Regionally Controlled Weeds in some parts of Victoria.

The first priority area has been declared in the Woody Yaloak River area near Ballarat, focussing on gorse. There are around 100 properties in the declared area. All landholders in the area were notified about the declaration by mail and have three months to undertake control measures against gorse on their property. Landholders who ignore these warnings will face infringement notice fines of approximately \$430.

The Woody Yaloak River area has been heavily infested with gorse but over the last three years there has been significant community action and support to remove gorse and rehabilitate the waterway.

By declaring Woody Yaloak a priority area, DPI aims to support the work done by Landcare

and other local groups including the Gorse Task Force and the Woody Yaloak Catchment Group.

### **Bass Coast works crew a hit with locals**

The efforts of Landcare groups in the Bass Coast area has been boosted by the employment of a works crew to tackle weed and pest animal concerns.

The Bass Coast Landcare Network with the support of the Bass Coast Shire Council has trained, supervised and employed two workers who have been busy with rabbit baiting, weed spraying, seed collecting and tree planting. With flexible fortnightly schedules and the addition of a volunteer, the crew is making a significant impact on long-term weed problems in the area like blackberry and gorse.

Recent projects have seen the crew removing Pittosporums, Polygala, Gorse and Cape Wattle from roadside and reserve locations around Phillip Island. The crew will also undertake extensive weed mapping in 2007 and it is hoped that with a co-ordinated approach they can map and spray weeds at the same time.

For further information contact Matt Stephenson on 5951 3327.

### **White Spanish Broom swept away**

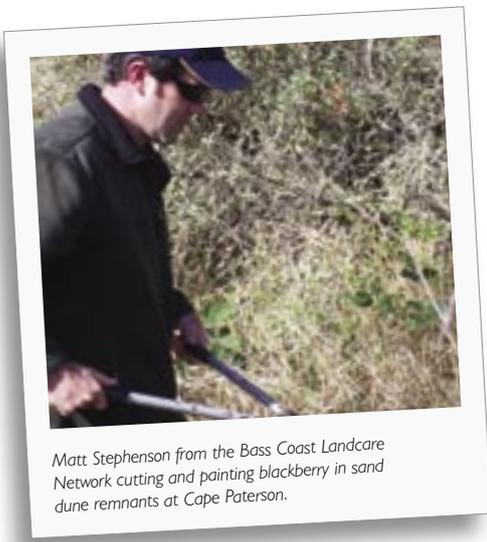
Late last year DPI Weed Alert team member Sarah Partington conducted surveys and co-ordinated the treatment of all known sites of White Spanish Broom (*Cytisus multiflorus*) within the Creswick Regional Park. A few new sites within the park and others found in the Ballarat area were also treated.

White Spanish Broom is a Victorian Alert Weed and a National Environmental Alert Weed that poses a serious threat to agricultural and natural areas. These sites will continue to be monitored and treated, as the long-lived seed can germinate over many years.

To report sightings of this spring-flowering white broom, call your local Weed Alert contact officer on 136 186.



White Spanish Broom is being managed around Creswick.



Matt Stephenson from the Bass Coast Landcare Network cutting and painting blackberry in sand dune remnants at Cape Paterson.



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**NOTE: 750mm long x 11-13 diam. bamboo stakes available at 6¢ ex gst extra per set**



**Option 3**

**Set Includes**

Quick fold no assembly

**1 x Guard**

450mm height x 200mm  
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**1 x Hardwood Stake**

75cm x 18mm x 25mm

1 x surejute mat or suregro  
recycled fibre mat

**Ex GST Inc GST**  
**\$1.35 \$1.485**  
per set



**Set Includes**

**1 x 2 Litre Milk Carton Tree Guard**

300mm height, 95mm x 95mm square, with  
stake perforations. Pack of 500 Milk Carton tree  
Guards

**2 x Bamboo Stakes**

**600mm long x 8-10mm diameter.**

Bales of 1000 stakes

**Option 4: 500 + sets**

**Ex GST Inc GST**  
**31¢ 34.1¢**



Please note Suregro Milk Carton Tree Guards  
are purpose made with stake perforations.

**Recycled Paper** Packs of 100 Mats

**Weed Mats** **33¢** each ex GST

**360mm diameter** 36.3¢ inc GST

**Surejute** Packs of 100 Mats

**Weed Mats** **38¢** each ex GST

**Approx 370mm x 370mm** 41.8¢ inc GST

**Recycled Fibre** Packs of 100 Mats

**Weed Mats** **35¢** each ex GST

**Approx 370mm x 370mm** 38.5¢ inc GST



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**GRANULATED SOIL WETTING AGENT**

**EROSION CONTROL MATTING**



**Ex GST Inc GST**

**Charlie Carp (100:1 solution commercial strength)**

5 Litre **\$36.50** \$40.15

20 Litre **\$122.80** \$135.08

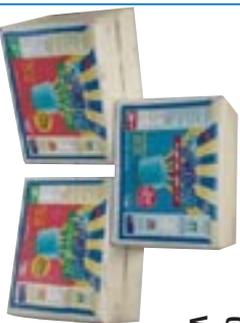
**Seasol (250:1 solution commercial strength)**

5 Litre **\$51.00** \$56.10

20 Litre **\$168.00** \$184.80

**Typhoon Tablets**  
10gm Box of 1000.  
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**Ex GST Inc GST**  
**\$74.50 \$81.95**  
Slow Release min 12 months



**Granular AquaBoost AG100**

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10+ **\$75.00** \$82.50

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2.4m w x 50m long-350gm/m² covers (120m²) **Ex GST Inc GST**

**\$220** \$242

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