

# Victorian Serrated Tussock Working Party



## progress report 2008



**Port Phillip and Westernport**  
CATCHMENT MANAGEMENT AUTHORITY



**NORTH EAST**  
CATCHMENT  
MANAGEMENT  
AUTHORITY



**North Central**  
Catchment  
Management Authority



**GOULBURN**  
BROKEN  
CATCHMENT  
MANAGEMENT  
AUTHORITY



**EAST GIPPSLAND**  
CATCHMENT  
MANAGEMENT  
AUTHORITY



**Natural**  
Heritage  
Trust

*Helping Communities  
Helping Australia*

A Commonwealth Government Initiative



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# Chairman's Report

I am pleased to present the 2007-2008 Progress Report for the Victorian Serrated Tussock Working Party (VSTWP). This will be my last report as Chair of the VSTWP and I would like to take this opportunity to congratulate Jim Seager for taking up the role. As I reflect, I continue to believe that serrated tussock remains the most serious threat to Victoria's land and resource base and its control acts as a catalyst for landscape scale change and the improvement of a Catchments health.



While the impact of serrated tussock for native values and agricultural productivity has many important consequences and implications, the components needed for its effective control are commonly accepted, namely cutting edge research, tailored use of a range of extension tools, targeted use of legislation and the development of strong partnerships which drive community based implementation.

In my time as Chair I'm pleased that I have been able witness the use of each of these components to fight serrated tussock and inturn work toward achieving the goals of the Victorian Serrated Tussock Strategy - "Intensifying the attack on serrated tussock".

The Working Party continues to sponsor research such as the current trial to determining if serrated tussock chemical resistant plants have spread from the known sites. If the result of this survey shows that chemical resistance is wider than first thought a program to deal with genetically different serrated tussock plants will be needed.

The VSTWP is committed to continuing to build relationships with our key partners and the partnership position we created with Department of Primary Industries (DPI) has been a shining example of what can be achieved when the community and government come together to work towards common goals.

The state-wide approach undertaken to manage this weed is another key to the success of the Serrated Tussock Program, one important component of this approach has been the Isolated Infestation Project funded through the Australian Government's Defeating the Weed Menace initiative. The project has encouraged the long-term control of serrated tussock through the delivery of targeted incentives to landholders dealing with this weed of National significance.

The DPI enforcement program continues to be the foundation for the advancement of the control effort. Enforcement is not a mechanism for long term behaviour change by itself. However it is critical in the support of the wider community who are tackling a weed which does not respect property boundaries.

As I have said in previous progress reports, the "passion and commitment" of land holders, industry, DPI staff, local government, the wider community and this Working Party, is there, however the "capacity" to succeed is entirely dependant on the government deciding it should invest in this area. I continue to hold the view that serrated tussock must be treated wherever it occurs and investment in this program is an investment in landscape scale change and the increase of capacity of those who are unfortunately dealing with this highly invasive pest plant.

Finally I would like to thank the wider community who continue to support the Victorian Serrated Tussock Party, the DPI Staff who's work is contributing to achieving the goals of the strategy and the members of the Working Party for their personal contributions and there tireless determination.

A handwritten signature in black ink, which appears to read "Peter Lindeman". The signature is fluid and cursive, with a long horizontal stroke at the end.

**Peter Lindeman**  
*VSTWP Chairperson*

# Serrated Tussock Background

## “Serrated tussock threatens Victoria’s native grasslands, many of which are listed as critically endangered”

Serrated tussock (*Nassella trichotoma*) is a Weed of National Significance striking fear in any farmer or land manager familiar with its devastating impacts. It’s one of the worst perennial grass weeds in Australia, invading pastures, native grasslands and urban areas and at present covers approximately 82,000 ha in Victoria which has been reduced considerably from 130,000ha in 1995, the year the Victorian Serrated Tussock Working Party formed.

Serrated tussock is a highly invasive environmental and agricultural weed that is difficult, time consuming and expensive to control. If left untreated, serrated tussock can become a continuous source of seed for whole regions with each mature plant producing approximately 140,000 seeds a year equating between 900 and 3,400 million seeds per hectare. The primary distribution of the seeds is by wind with the seeds capable of travelling up to 25kms, other seed transportation methods include on vehicles, livestock and in hay and fodder.

Serrated tussock threatens Victoria’s native grasslands, many of which are listed as critically endangered. Most remnant patches are small, fragmented and highly degraded so serrated tussock easily establishes itself amongst bare ground eventually out competing native grasses. It is important to stop the spread of serrated tussock into native grasslands as once its established control methods are limited. Identification of serrated tussock is crucial in its management as it looks similar to many native grass species.

Whilst the battle against serrated tussock continues, the commitment of landowners, community groups, government and non government organisations, the Department of Primary Industries and the Victorian Serrated Tussock Working Party has meant the density and distribution of serrated tussock in Victoria is reducing.



# The Victorian Serrated Tussock Working Party

The Victorian Serrated Tussock Working Party (VSTWP) is a community driven group focused on serrated tussock management in Victoria. The VSTWP formed in 1995 in response to community concern and has since then successfully contributed to reducing the infestation of serrated tussock from 130,000ha to 82,000ha.

The VSTWP works in partnership with the Department of Primary Industries and other government and non government organisations to achieve the goals outlined in the strategy "Intensifying the attack on serrated tussock 2005 – 2010."

The Department of Primary Industries are the main service provider to the VSTWP working to achieve the outcomes in the Victorian Serrated Tussock Strategy and the 'Victorian pest Management Framework.'

## **The goals of the Victorian Serrated Tussock strategy, 'Intensifying the attack on serrated tussock 2005 – 2010' are:**

- All satellite infestations will be identified and controlled by land managers with a view to eradication.
- The spread of serrated tussock will be contained and the density of known infestations will be reduced from the current levels by a further 40 per cent.
- All new infestations of serrated tussock will be mapped and recorded.
- 25 per cent of properties recorded with serrated tussock infestations will be under long-term control defined as a well managed property where the land manager is committed to and understands long-term integrated control methods (including trees, native grasses, pasture or crops).
- All known land managers affected by serrated tussock will be aware of the control options available to them.
- 50 per cent of land managers affected by serrated tussock will be voluntarily preventing the growth and spread of serrated tussock on their property without intervention by DPI compliance officers.
- There will be highly visible landscape changes through the investment of stakeholders in sustainable land management projects such as Grow West and the East Moorabool Gorge Recovery Project.
- The implementation of the serrated tussock project will reflect the principles of the Victorian Pest Management Framework for Action, the Victorian Weed Management Strategy, the National Weeds Strategy and the National Serrated Tussock Strategy.

Delivering the goals of the strategy involves compliance and monitoring programs research into new technologies for herbicide and pasture management, development of information material, and continuing to build on partnerships with landowners, community groups and local government.

## **The VSTWP has the following terms of reference:**

- Develop and implement detailed strategies;
- Oversee implementation of on-ground work programs;
- Review and allocate current budget allocations;
- Attract further funding through grant submissions;
- Act as a communication link with stakeholder groups;
- Produce annual progress reports; and
- Advise Government of serrated tussock project objectives and targets.

**“...working to raise awareness in communities  
where serrated tussock is prevalent”**



Since the Working Party's formation in 1995, partnerships have been developed with key stakeholders to increase their awareness of the issues associated with serrated tussock. This has resulted in a significant reduction of serrated tussock in areas of core and isolated infestations.

In 2007 the VSTWP funded the position of a partnerships officer who assists in the delivery of the Victorian Serrated Tussock Strategy by developing effective partnerships with key stakeholders and working to raise awareness in communities where serrated tussock is prevalent.

The VSTWP continues to develop new strategies, educational material and communication material and work with key stakeholders providing support for programs developed within Victoria to target serrated tussock infestations.

# Defeating the Weeds Menace Program

## “Intensifying the attack on serrated tussock: targeting isolated infestations for eradication”

The Australian Government committed \$44.4 million over 4 years, from 2004/05 to 2007/08 for national action on Australia's most threatening weeds through the Defeating the Weeds Menace Program.

The Victorian Serrated Tussock Working Party and the Department of Primary Industries were successfully granted \$365,000 to deliver the project; ‘targeting isolated infestations for eradication.’

The isolated infestations program aims to achieve rapid and long term control of isolated serrated tussock infestations replacing it with appropriate local native vegetation.

As of June 2008 over \$78,000 funding was delivered to 34 private landowners providing an opportunity for land managers to implement long term management plans to prevent the further spread of serrated tussock. It is expected that over \$200,000 dollars in grants will be distributed to landholders throughout Victoria by the completion of the project in 2009.

The grants were available for control works including fencing, establishment of perennial pastures, management of native grasslands, establishment of wind breaks and herbicide costs for chemical control.

The Department of Primary Industries Staff in each of the Catchments are working with successful applicants of the 2007 / 2008 grant in delivering their project outcomes.

Isolated Infestation Catchment	Incentive Funds Delivered for 2007/08
Port Phillip	\$3,197
Corangamite	\$8,232.50
Glenelg Hopkins	\$13,009.25
North East	\$0
North Central	\$0
East Gippsland	\$38,400
West Gippsland	\$14,764
Wimmera	\$500
Total	\$78,102.75

# Local Government Programs

There is a large amount of work done by Municipal councils across Victoria to effectively manage serrated tussock. The following are examples of work done by Municipal Councils by the catchments in which they are situated.

## Corangamite Catchment

### Golden Plains Shire

Golden Plains Shire has continued to control serrated tussock on Council owned and managed land in 2007/08 as part of their annual weed control program. Serrated tussock is a priority weed for control with Council efforts in the southern end of the Shire focussed on this species. Ongoing effort has seen a gradual reduction of serrated tussock infestations with some areas not requiring control work in the 2008/09 weed control program. Additionally, Council continues to provide support for serrated tussock identification and control in urban and peri-urban areas through opportunistic extension services, regular articles in the bimonthly Council newsletter and the development of information sheets for declared weeds which are available from the Golden Plains website. Council has also supported the work of local Landcare groups in their efforts to control the weed.

### City of Greater Geelong

The reserves management team have continued to control serrated tussock in its conservation, recreation and drainage reserves throughout the year with routine spot spraying. The council has continued to complement efforts by the community to address serrated tussock and other weed issues on their reserves.

## Glenelg Hopkins

### Northern Grampians Shire

A new infestation of serrated tussock was discovered in January 2008 at Central Park Stawell (home of the Stawell Gift). Plants had been planted in a garden bed and were starting to spread into adjacent lawn area from seed dispersal. On contact with staff of the Northern Grampians Shire (managers of the reserve) the infestation was controlled quickly. An investigation into the origin of infestation found that plants were purchased from a local Nursery over ten years ago. No other plantings were undertaken by the Municipality using these plants.



# Local Government Programs

## North East Catchment

### Indigo Shire

The Indigo Shire have shown full support for the newly formed Rutherglen Chiltern serrated tussock project in that the Chief Executive Officer, Brendan McGrath signed off on both the Terms of Reference and the Memorandum of Understanding. Shay Simpson, the Indigo Shire Natural Resource Management Officer, is on the committee and promotes the project at all opportunities. Indigo Shire has continued to ensure that all sites are mapped and marked using the 'Enviromark' system.

In conjunction with Indigo Shire, DPI provided weed information sessions at Yackandandah, Beechworth and Rutherglen. These sessions provided an opportunity to promote the serrated tussock issue to grounds, maintenance and contract staff of Indigo Shire.



## North Central Catchment

### Macedon Ranges Shire

Strong partnerships have been developed with the Macedon Ranges Shire Council regarding serrated tussock management. The Macedon Shire Council is in close proximity to large infestations located within the Port Phillip Catchment Management Authority region, and recognises the threat posed by this weed.

A Grassy Weed Field Day was held at Langley near Kyneton on 27th October 2007. The field day was held in conjunction with the Baiton-Sidonia Landcare group and Macedon Ranges Shire Council. Approx 30 participants were provided with information on identification and management of Serrated Tussock, Chilean Needle Grass and Texas Needle Grass.

# State Government Programs

## Department of Primary Industries

The Department of Primary Industries acts as the main service provider to the Victorian Serrated Tussock Working Party delivering programs guided by the 'Victorian Pest Management Framework' and the VSTWP strategy 'Intensifying the attack on serrated tussock 2005 – 2010.'

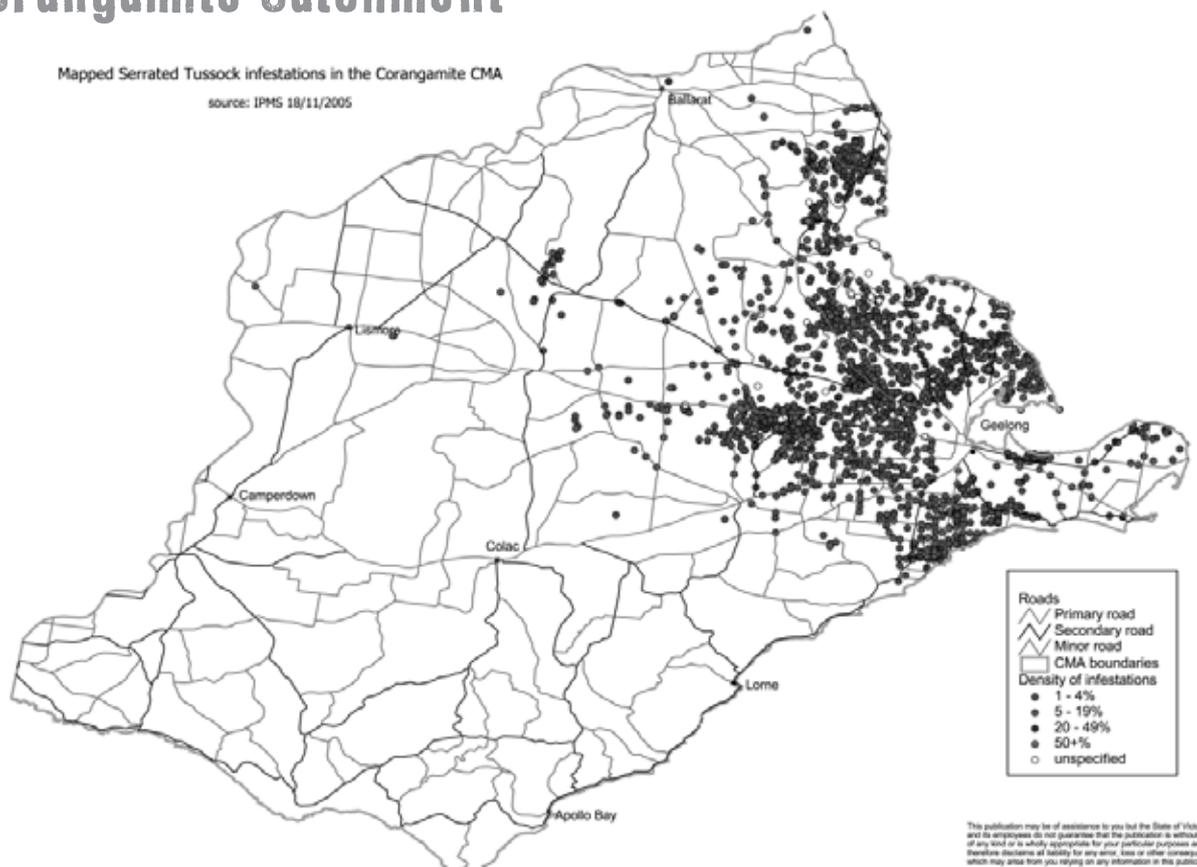
The Department of Primary Industries staff are dedicated to achieving the strategy's outcomes which works towards the control of serrated tussock across the state.

The Department of Primary Industries Rural Extension Officers provide serrated tussock best practise management information to landowners across Victoria to raise the community's awareness on the impacts of serrated tussock. They also work with communities encouraging the voluntary control of this invasive plant.

The Department of Primary Industries compliance officers are responsible for ensuring landowners meet legislative requirements in controlling serrated tussock benefiting whole communities from unwanted serrated tussock seeds. The compliance officers conduct inspections with the aim of working within priority communities to reduce the most serious areas of infestation to other adjoining properties or seed spread to clean areas.

The Department of Primary Industries continues to work towards the control of serrated tussock in core infestation areas in the Port Phillip and Corangamite Catchments and the eradication of serrated tussock in areas of isolated infestations from 7 other Catchments in Victoria.

## Corangamite Catchment



# State Government Programs

## Corangamite Catchment (continued)

### Background

Within the Catchment of Corangamite there are currently 2257 serrated tussock sites therefore a prioritisation process is conducted at the beginning of each calendar year to ensure a strategic approach is implemented to; protect high value assets, prevent further spread to unaffected areas within the Catchment and deliver targeted compliance.

### Isolated Infestation Program

**Island in a sea** – A property at Rokewood Junction situated in the middle of a linear infestation along the Moonlight-Misery Creek was found to be free of serrated tussock. The property owner has historically had serrated tussock across his property but has now remained free of serrated tussock with a simple management policy of ‘never passing a plant’. The owner always carries a mattock in his vehicle when ever he travels and grubs out any plants as he finds them. This policy has ensured a property free of serrated tussock with a minimal input of labour required.

### Good Neighbour Program

**Good Neighbour Roadside Treatment** – Roadside treatment of serrated tussock has been completed across 186 local roadsides covering 75Ha’s within the Corangamite Catchment region. This is the projects final year with the re classification of serrated tussock to a Regionally Controlled weed within Corangamite.

### Railways

**Pacific National** – has identified serrated tussock as their top priority weed on their rail network. Maintenance crews have continued to address control of serrated tussock along the rail lines. Vic-Roads- has continued to employ contractors to spray serrated tussock along the roadsides, notably the Hamilton and midland highways.

### Compliance

Approximately 90 properties were visited as part of the Corangamite priority property projects, these properties are within core infestation areas and require intervention to ensure they meet legislative requirements and proactive landholders are not affected by reinvasion. Final inspections were completed during October 2007, as a result.

A Balliang company was found guilty of failing to comply with a ‘land management notice’; the company was convicted and fined \$1500 plus costs.

Seven people and two companies were issued infringement notices throughout the Catchment for failing to control serrated tussock.

# State Government Programs

## Corangamite Catchment (continued)

### Extension and Awareness

**Four Isolated infestation project areas have been resourced during the 2007/08 period, which include, Rokewood, Woody Yaloak, Bellbrae and Cressy–Eurack.**

The location of the focus areas forms a containment line of inspected land west of the core infestation where landholders have increased their capacity to recognise and manage serrated tussock long term.

The delivery of these four project areas has included mapping of each property to determine if serrated tussock is present, discussing identification, and management with landholders, utilising static displays of serrated tussock or live specimens, where serrated tussock is identified outlining a common completion date within the project area, followed by a reinspection. Where serrated tussock control has not been satisfactorily completed a notice is issued to ensure control.

As part of this project one landholder failed to comply with requests to control serrated tussock, this matter has been referred to the offence management unit for prosecution

**Fifteen media articles were written by Corangamite based staff with topics ranging from management (prevention, control and preventing contamination), projects, grants, partnership objectives and court action. In order of submission are the following media articles for 07/08,**

- Isolated tussock infestations targeted
- Be aware of noxious & Agricultural weeds in fodder & Grains
- All fired up about weed control
- Serrated tussock and fodder
- Machinery Movement
- Establishment of pastures and management of serrated tussock
- Using Perennial Pastures to out compete serrated tussock
- Local government partnerships in the fight against tussock
- The seeding of serrated tussock
- Is time running out for native grasses
- Serrated tussock infestations-early management
- Get on top of serrated tussock early before it takes hold
- Last chance for serrated tussock grant
- Landholders fined for ignoring tussock threat
- Project to reduce the threat of serrated tussock in Moorabool Catchment

# State Government Programs

## Landcare

**Landcare interactions** – DPI staff has continued to work closely with Landcare groups in building a greater understanding of DPI'S role while promoting community engagement of the weed. This has involved complimenting serrated tussock presentations with other weeds that have elevated community concern such as Chilean Needle Grass. Hands on identification has played an important part of building confidence in landholders capacity to recognised the weed while delivery immediate and long term management information whilst the interest is high and the participants motivated. A synopsis of some of the presentations are as follow;

- **Barrabool & SCIPN Landcare Meetings** – The Serrated Tussock Partnerships Officer delivered presentations to the Barrabool & SCIPN Landcare groups outlining resources available to the group through the partnership role. The presentation also involved an evaluation of the group's knowledge of serrated tussock and identified areas where the group would like further information and assistance
- **Rokewood Landcare Meeting (Woody Yaloak)** – Staff presented information regarding the 2007 isolated infestation project within the Rokewood and Misery Moonlight Creek project area. This included findings from property inspections, discussions around the grant processes available to landholders and discussed expansion in 2008.
- Staff attended a **Bellarine Landcare group meeting** and presented information regarding Serrated Tussock identification, conducting hands on training with attendees with an interactive display of native and exotic tussocks.
- Staff attended a **Wurdale Landcare Group meeting** outlining the Serrated Tussock Isolated Infestations project areas and presented information on identification and management.
- **SCIPN REPORT** – SCIPN has earmarked Serrated Tussock, Gorse and Rabbit control as ongoing issues that will be addressed throughout the year. Work SCIPN has achieved over the past year on Serrated Tussock includes a serrated tussock field day, weed identification and eradication methods. The Department of Primary Industries Environmental Best Practice Program (EBMP) this past year has seen 20 participants look at weed issues such as Serrated Tussock. SCIPN through this program has been able to help landholders identify infestations and the best eradication program available. With DPI targeting areas within the SCIPN region, this has helped us highlight the importance of controlling this weed.

*A list of presentations delivered to various groups within the Catchment are as follows; Bellarine Landcare Group, Wurdale Landcare Group (on 2 occasions), Woody Yaloak Landcare Group, Winchelsea Landcare Group, Murroon Landcare Group, Winchelsea River care Group, SCIPN Landcare Network, Barrabool Landcare Group, Elingamite-Cobrico Landcare Group, Gordon Technical Tafe College, State Extension Leaders Network.*

# State Government Programs

## Corangamite Catchment (continued)

### Landcare (continued)

Several agricultural/environmental shows and day events were attended by DPI staff. Partnerships with the Upper Barwon Network group, Bellarine Network Group and the Geelong Landcare Network group continued to develop throughout the year. The days/show is as follows;

- **Winchelsea Wool Sports** – Corangamite Landscape Protection staff delivered a one day pest management component of whole farm planning, focussing on serrated tussock, gorse and rabbit management. Presentations were delivered in the morning sessions with a field trip to an infestation of gorse recently groomed and several warren systems ripped to discuss aspect of different pest management techniques.
- **Brisbane Ranges Wildflower Show** – Landscape Protection staff attended the annual Brisbane Ranges wildflower show recently held in Anakie. A live display of serrated tussock amongst local indigenous grass species provided visitors an opportunity to identify and look at different characteristics of the plants. Over 150 people attended the event with plenty of interest generated through the pest plant and animal display.
- **Bellarine Agricultural Show** – Landscape Protection staff manned a pest plant and animal display including; Serrated tussock plants, native grass look alike, laminated displays of Chilean needle grass and the native look alike spear grasses. Visitors were provided hands on identification training and were provided with identification and management solutions. Participants included a mixture of small and large landholders both local and from as far as Bendigo and Warrnambool, visitors included the minister for agriculture Joe Helper.
- **Lilydale House open Day** – Staff attended an on property open day providing a serrated tussock and native look alike display. The day also included the delivery of a 20-25 minute presentation focussing on serrated tussock Identification and management to around 100 visitors. Around 25-30 people mostly new to the area were provided hands on Identification and discussed management. Approximately 60 extension packs were provided to attendees.
- **Geelong Show** – The 152nd Geelong Agricultural Show was held over 4 days in October; DPI exhibited a display for the first time in almost a decade. The display had a pest plant and animal theme, designed by the Landscape Protection team. The stuffed fox and rabbit were the star displays. Many children were delighted at being able to get up close and personal with such well known pest animals, which was the basis for many discussions regarding pest management with parents. Other business involved were Sustainable Landscape with information and displays of several soil profiles, the Moorabool Gorge Recovery Project, Climate Change information and Animal Health information with the latest updates regarding Equine Influenza.



# State Government Programs

## Landcare (continued)

- **Lara Heritage Show** – On Saturday the 15th. March members of the Corio Landcare Group manned a tent along with William Whiteside (DPI). A Serrated tussock (*Nassella Trichotoma*) display was provided with advice on learning identification methods and distinguishing features of Serrated tussock and the native “look alike” tussock (*Poa labillardieri*), as well as prevention and control. Also advice was provided on Gorse and Pest Animal Control techniques to members of the public.
- **Battle of Bannockburn (Bannockburn show)** – The festival was held at Bannockburn, in the Shire of Golden Plains, on Sunday 22nd. June. The Leigh Landcare Group organised a tent and member volunteers. William Whiteside (DPI) supplied a Fox, Rabbit, Serrated tussock, and Gorse Display along with Landcare Notes as well as providing advice on Noxious Weed Identification, Prevention and Control techniques and also Pest Animal Control methods, to a steady stream of eager members of the public. A passing parade of Land-Owners and members of the public provided a tremendous opportunity for DPI to meet many Land-Owners, answer questions and advice on a wide variety of Landscape Protection issues with an emphasis on Noxious Weed and Pest Animal Integrated Control techniques.
- **Inverleigh Open Day** – Landscape Protection staff attended a field day focussing on serrated tussock and rabbit management at Inverleigh. Approximately 15 landholders attended the event. Presentations focussed on establishing long term rabbit control and the management of serrated tussock.
- **Ballarat Farm Expo** – On Wednesday March 26th members of the DPI Landscape Protection Team participated in manning a Tent displaying Declared Noxious weeds offering a range of advice to passing members of the public on Identification and a variety of integrated control measures. This was a tremendous opportunity for the Team Members to be available to answer questions and also for the Department to showcase the latest information on control measures for Declared Noxious weeds, such as serrated tussock, Gorse and many others.

## Highlights

The isolated infestation fund was taken up by two landholders in the Rokewood Junction area. The two properties situated on either side of Misery Creek comprised of several thousand plants each. Several other properties further north and south had smaller infestations ranging from less than 100 plants to several hundred. The opportunity to take a large leap forward has placed the community in a great position to eradicate serrated tussock from their area and reduce the impacts to the environment and agriculture.

## Issues

**In February 2008 serrated tussock was reclassified  
from `regionally prohibited` to `regionally controlled`**

# State Government Programs

## Port Phillip and Westernport Catchment

### Background

Serrated tussock is a regionally controlled weed in the Port Phillip and Westernport Catchment as the west of the Port Phillip Catchment contains the core infestation. Landowners have a legal responsibility under the Catchment and Land Protection Act 1994 to take all reasonable steps to prevent the growth and spread of regionally controlled weeds.

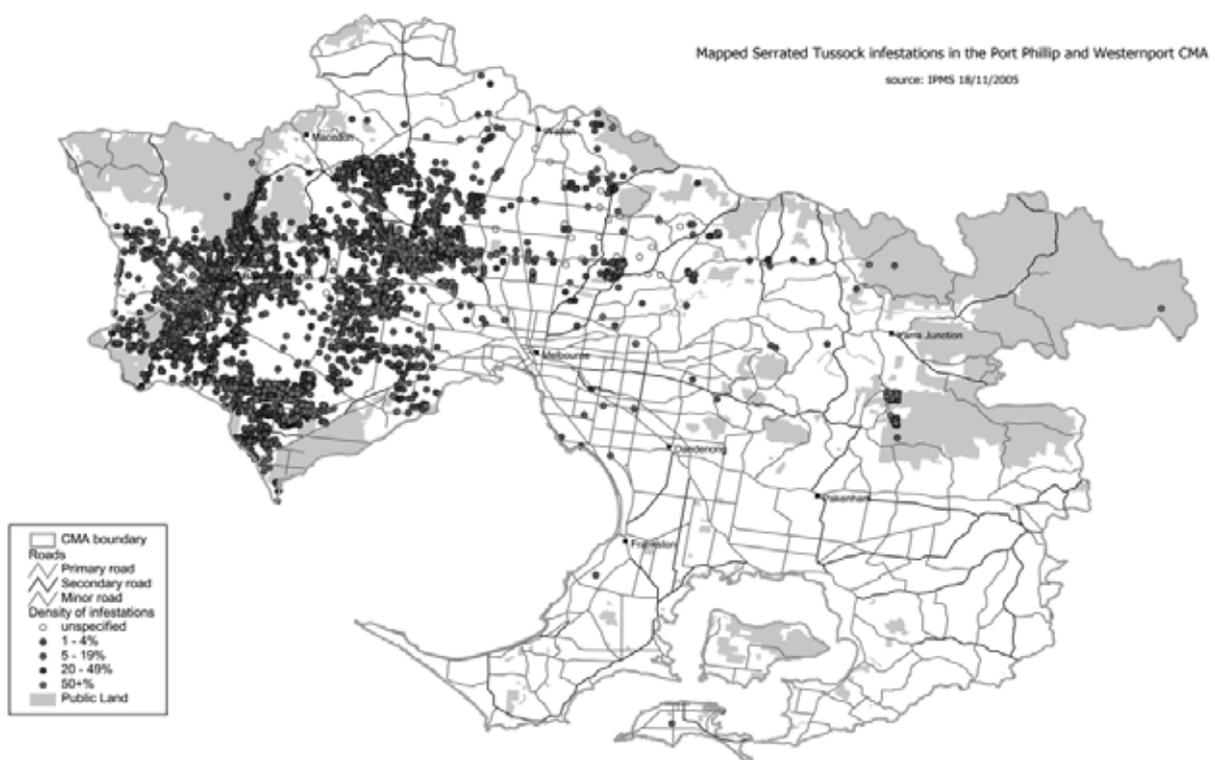
Scattered infestations of serrated tussock have been recorded in the areas bordering Goulburn-Broken catchment; these are the highest priority for the serrated tussock program in Port Phillip.

### Isolated Infestations Program

'Fairfield' is a large property of 1300 hectares in the Macedon Ranges Shire about 50 km north of Melbourne. The property has an infestation of serrated tussock approximately 40 hectares in size and is a major threat towards the spread of serrated tussock into the Goulburn Broken Catchment. This year the property applied for an isolated infestation grant under defeating the weed menace of \$2,250 to aerially spray 40 hectares of serrated tussock. It is the largest infestation in the area and was the seed source of serrated tussock for surrounding properties. The treatment of this property is a large step in controlling the spread of serrated tussock throughout the northern area of the catchment.

In May and June 62 properties totalling 6320 hectares were inspected around Daraweit Guim and Deep Creek. 10 properties were found to contain serrated tussock. All properties with serrated tussock were issued with Direction Notices.

75 properties have been inspected in Nillumbik and Whittlesea; all properties with serrated tussock were issued with Direction Notices.



# State Government Programs

## Good Neighbour Program

The final year of the Good Neighbour Program saw \$45,000 invested in the employment of a project officer to implement the program. Protection and support was given to public land in the Multiple Outcomes Project Area, this involved funding for the integrated control of serrated tussock on public land and the inspection of properties on the public-private land interface to ensure that the environmental assets were protected.

## Compliance

The compliance program targets the core infestations of serrated tussock in the catchment, Key compliance objectives include supporting local government rate rebate schemes and contributing to the outcomes of the Multiple Outcomes Project area in the West of the catchment. These areas have had a decade of DPI extension and therefore now DPI has an increased focus on compliance in support of community action on serrated tussock.

## **“wind blown serrated tussock seeds make recalcitrant landowners a significant threat to community action”**

The serrated tussock prioritisation report further emphasised the collaborative partnerships formed between the DPI, VSTWP, local government and community groups. These partnerships were utilised to identify priority areas and properties that needed to be inspected. These partnerships also build the capacity of local communities to deal with invasive plants and animal issues and raise awareness of serrated tussock through field days, workshops training events, media releases and other events.

The DPI mobile taskforce inspected 73 properties around Diggers Rest in Hume City Council; this resulted in the issuing of 72 Directions Notices and 4 Land Management Notices. 7 Landowners received unofficial warning letters, 11 Landowners received infringement notices and one land owner failed to comply with a Land Management Notice.

A compliance operation by local officers was completed across the shires of Melton, Wyndham and Hume strengthening the partnerships with local government and supporting their rate rebate schemes. 141 properties were initially inspected with 115 Directions Notices and 43 Land Management Notices issued. 14 landowners failed to comply with Land management notices and 22 landowners failed to comply with a Directions Notice.

107 properties were inspected in the Grow West Multiple Outcomes Project Area within Moorabool Shire, 81 Directions Notices and 3 Land Management Notices were issued. 1 landowner was prosecuted and 12 landowners received Infringement Notices.

The wind blown serrated tussock seeds make recalcitrant landowners a significant threat to community action on serrated tussock, therefore compliance is utilised by the DPI to support community action against serrated tussock.

## Railways

Collaborative partnerships have been developed with VicRoads and rail authorities. These partnerships have resulted in extensive serrated tussock control programs. A total of 95 km of VicRoads roads covering 10 freeways, highways and major roads and 110Km of railway easements have been treated for serrated tussock.

# State Government Programs

## Port Phillip and Westernport Catchment (continued)

### Extension and Awareness

The extension and awareness sub-project of the 2008 serrated tussock program targeted isolated infestations in the north of the catchment. With the aim of increasing the capacity of communities within the shires of Mitchell, Macedon, Nillumbik and Whittlesea to identify and control serrated tussock.

DPI staff worked in conjunction with the VSTWP and local government to prioritise areas for serrated tussock extension works. Serrated tussock was mapped through the Deep Creek and Daraweit Guim areas; this has greatly increased the departments' awareness of the extent of serrated tussock in the northern regions of the catchment.

#### Media articles produced include:

Diamond Creek Leader 'St Andrews Targets Serrated Tussock'

Aurthurs Creek Community Newsletter 'Grants to Battle Grass'

Primary Voice 'Serrated Tussock work in Bacchus Marsh'

Primary Voice 'Knock Out Serrated Tussock'

Macedon Ranges Community News 'Clarkefield Field Day'

Kilmore Weeds Seymour Trees newsletter 'On the Hunt for Serrated Tussock'

Moorabool Leader 'Knock Out Weed'

Ballarat Courier 'Act Now on Serrated Tussock'

### Public Land Managers

25 public land inspections were undertaken for serrated tussock. Public land managers in serrated tussock priority areas are actively involved in the integrated control of serrated tussock.



# State Government Programs

## Highlights

In May 2008 a serrated tussock field day was held in Clarkefield, aiding local landholders in the identification and best management practises to deal with the invasive weed. This area contains an isolated infestation of serrated tussock and the event attracted 30 landowners, helping to create community capacity to prevent the spread of the species.

- DPI staff presented on serrated tussock and pasture weed control to 86 community members at a pasture field day in Whittlesea.
- Landscape Protection staff participated in a number of research interviews regarding the relationship between government and the community in the fight against serrated tussock.



## Issues

### Emergency Management

An incursion of the State Prohibited Weed, Mexican Feather Grass was found being distributed by wholesalers. The incursion response involved redirection of staff from the Port Phillip serrated tussock program of 720 working hours.

Equine Influenza involved the redirection of staff from the serrated tussock program to a total of 240 working hours.

### Native Vegetation and Serrated Tussock Control

In late May 2008 the ecological community "Natural Temperate Grassland of the Victorian Basalt Plain" was gazetted as a "critically endangered" ecological community under S182 (1) of the Environment Protection and Biodiversity Conservation Act 1999. As a result the aerial application of herbicide for the control of serrated tussock in this area has largely ceased due to aerial sprayers refusing to operate in the event that they adversely impact on this endangered ecological community.

### Local government referral process in relation to rate payer rebate scheme

The mobile taskforce project team provided feed back to the Port Phillip regional staff regarding inconsistencies in the property referral process used to support local government rate rebate schemes. The Mobile Compliance team found that when inspecting properties referred by local government that neighbouring properties were infested with as much if not more serrated tussock. Concerns were expressed of how this approach could affect the serrated tussock program in Port Phillip. Recommendations were made to amend this issue.

### Prioritisation process for serrated tussock program

The prioritisation process is being reviewed for the 2009 – 2010 serrated tussock program and a new method will be developed to collect regional data. The Victorian Serrated Tussock Working Party is seeking suggestions on ways to improve the process for 2009 - 2010 to obtain more accurate information and work with local government to support their serrated tussock management programs.

# State Government Programs

## Glenelg Hopkins / Wimmera Catchment

### Background

Serrated tussock was first observed in the Wimmera Catchment in 2000 at two locations, Glenorchy and Landsborough. A further small isolated infestation was discovered on Railway Reserve at Armstrongs in 2003.

Within the Glenorchy target area 12 infestations occur across private property, roadsides, Railway Reserve, and Public Land. The approximate area infested is 11.6 hectares.

Within the Landsborough target area all 6 infestations are located on private property and cover about 5.3 hectares.

Yearly inspections of all sites have been undertaken since Serrated tussock was first observed. These have been combined with extension and compliance programs that are assisting to achieve the goal of eradicating Serrated tussock from the Catchment.



# State Government Programs

## **Isolated Infestations Program**

One landowner at Landsborough participated in this program, receiving a grant of \$500.00.

## **Good Neighbour Program**

\$1000.00 of Good Neighbour Program funding was allocated for the implementation of a control program on Public Land at Glenorchy. A contractor was engaged to spray the infestation with the works being completed in November 2007.

## **Compliance**

Initial property inspections were undertaken from July to September 2007. Infested sites either had none to only few isolated plants at them. Where plants were observed they were controlled by the landholder at the time of the inspection. A total of 22 plants were observed and controlled across 11 properties.

## **Railways**

Australian Rail Track Corporation (ARTC) has three infestations covering an area of about 0.4hectare on Railway Reserve within the Glenorchy target area. Across these sites only 2 plants were required to be controlled. At a further isolated site on Railway reserve at Armstrongs 1 plant was found and eradicated. 1.5hectares of road reserve is infested within the Glenorchy target area. 16 plants were observed and controlled across this area.

## **Extension and Awareness**

A newspaper article was produced in November 2007 giving an overview of Serrated tussock within the Catchment. It highlighted when Serrated tussock was first observed, where the main infestations are located, control practises undertaken by landowners and the current status of infestations.

## **Public Land Managers**

Department of Sustainability and Environment (DSE) managers a 5 hectare reserve within the Glenorchy target area of which 2.3 hectares is infested. The control program undertaken on this area was funded by the Good Neighbour Program.

## **Highlights**

Since serrated tussock was discovered in the Catchment in 2000 the density of most infestations has been reduced significantly to the extent that only a few plants have been found and in some cases none as of 2007 data.

# State Government Programs

## North East Catchment

### Background

Anecdotal history indicates that serrated tussock has been present in the Rutherglen and Chiltern area for at least 40 years. The source of introduction is not known but reference is made to the fact that moving stock along roads in the area may have played a role in its spread through the local road network.

In the North East Catchment serrated tussock infestations have been traditionally confined to the Chiltern Rutherglen area however this year an infestation was located a private garden in Benalla by Tony Lovick, a Program Manager for DPI. The private garden owner was notified and was happy to remove the plants. In the Chiltern Rutherglen area there are only twenty-one known infestations covering some twenty hectares in total. Of the twenty-one sites all of them are roadside infestations. Six of these sites have spread into adjoining freehold. Due to thorough treatment over the last few years only one freehold property needed treatment this year. Of the twenty-one known infestation sites, thirteen of them are clustered along roadsides within a core area of some three thousand hectares.

This is the most difficult area to deal with, largely due to the uneven nature and general weediness of the roadsides in this area. Although eradication in this area will be difficult it remains the project goal. Four sites are clustered within a ten hectare area. The remaining four sites are more isolated and consist of low plant numbers.

Total eradication is the goal in these areas.



# State Government Programs

## **Isolated Infestations Program**

No projects were funded under this project as most infestations are on roadsides. Only one freehold infestation required treatment this year. This was funded by the landholder.

## **Good Neighbour Program**

Most of the serrated tussock infestations known in North East Catchment are found on local roadsides, one is found on the Murray Valley Highway and another on the Hume Freeway. DPI's good Neighbour project engaged a contractor to treat local road infestations. Each infestation received two treatments. Vic Roads used the same contractor for to treat infestations.

## **Compliance Program**

Local North East and Goulburn Broken DPI staff completed a taskforce like extension and compliance project in a targeted area within the Rutherglen Chiltern area. Fifty-four properties were inspected, covering some six thousand hectares. No new sites were identified during this survey. This reinforced the isolated nature of serrated tussock distribution in the area and indicated that the main populations of serrated tussock have not advanced into surrounding areas.

A program to treat all known serrated tussock roadside infestations in the Rutherglen and Chiltern region was completed under DPI's Good Neighbour project. Treatment works will be supported by an extension compliance program using DPI's Mobile Compliance Team in early August 2008.

## **Roadsides**

Vic Roads has been fully supportive of the project. Graham Freestone, the Regional Director Vic Roads North Eastern Region signed off on both Terms of Reference and Memorandum of Understanding and Vic Roads Environmental Manager, Mike Kerr is a representative on the local committee.

Vic Roads has also shown full support with mapping and permanently marking all sites using the 'enviromark' system and with the erection of serrated tussock warning and information signs on both the Hume Freeway and the Murray Valley Highway.

There are no known infestations of serrated tussock on the north east rail corridors.

## **Extension and Awareness**

The Department of Primary Industries has worked with representatives for all partner agencies and community groups to develop a 'Terms of Reference' and 'Memorandum of Understanding' for the Rutherglen Chiltern Serrated Tussock Project Steering Committee (RCSTPSC).

Representatives for all partner agencies for the RCSTPSC have signed a 'Terms of Reference' and 'Memorandum of Understanding'. These documents formalise the Committee's purpose, its role in leading the challenge to eradicate serrated tussock from the Rutherglen Chiltern area.

RCSTPSC membership includes the Department of Primary Industries, Victorian Serrated Tussock Working Party, North East Catchment Management Authority, Rutherglen and Chiltern LandCare Groups, Rutherglen Wine Growers Association, Victorian Farmers Federation, rural merchandisers, Vic Roads and Indigo Shire.

# State Government Programs

## North East Catchment (continued)

### Extension and Awareness (continued)

In June 2008 the first official meeting of the Rutherglen Chiltern Serrated Tussock Project Steering Committee was held under its recently formalised Terms of Reference and Memorandum of Understanding. Jenny Davidson from Rutherglen Landcare Group is the Chairperson and Greg Johnson DPI Pest Management Officer will undertake an executive officer role coordinating the committee, its planning, project implementation and reporting to the North East Catchment Management Authority and the Victorian Serrated Tussock Working Party. The committee will work together to get serrated tussock identification and eradication into the forefront of land owners' minds in the coming years.

**“a great way to provide land owners with an idea of what they need to be looking out for on their properties”**

A serrated tussock display was installed at McNamara's Rural Produce Store, Rutherglen and was timed to coincide with a two-day field expo being run at the store from 20-21st June 2008. The serrated tussock display promoted the need for land owners to fine tune their identification skills and monitor their own properties for serrated tussock. Several landholder reports were followed up by DPI as a result of the display. The live serrated tussock specimen in the display case was a great way to provide land owners with an idea of what they need to be looking out for on their properties.

The display was also set up in a store in Chiltern for three weeks to increase awareness in that community.

Serrated tussock extension and identification information was provided at the Rutherglen Show. This was a particularly successful event and highlighted to a lot of local community the importance of locating and eliminating Serrated Tussock infestations.

Serrated tussock extension material was displayed at the Wangaratta and Tintaldras Shows, Henty and Tallangatta Field days and the Bright Garden Expo.

### Landcare

Both Rutherglen and Chiltern LandCare groups are very much involved in the Rutherglen and Chiltern Serrated Tussock Project. Jenny Davidson (Rutherglen LandCare member) is Chairperson of the Rutherglen Chiltern Serrated Tussock Project and Quentin Bell (President of Chiltern LandCare Group) is a keen committee member of the Rutherglen Chiltern Serrated Tussock Project. Both LandCare groups have been involved in serrated tussock community education programs such as information displays at local shops and meetings.



*Greg Johnson (DPI), Jenny Davidson (Chairperson of Rutherglen Chiltern Serrated Tussock Project Committee) and Shay Simpson (Natural Resource Management Officer with Indigo Shire)*

# State Government Programs

Serrated tussock information was presented to a meeting of the Boorhaman LandCare Group. This group adjoins the Chiltern Rutherglen area. Boorhaman LandCare members were keen to be able to identify serrated tussock for cost effective early treatment if it were to appear in their area.

## CMA

North East CMA has shown full support for the Rutherglen Chiltern serrated tussock project with CEO John Riddiford signing off on both Terms of Reference and Memorandum of Understanding. Klaus Boelke (LandCare facilitator) represents the North East CMA on the local committee.

## Public Land Managers

DPI staff has liaised with Parks Victoria staff and provided serrated tussock identification and information sessions.

Parks Victoria staff has carried out surveys for serrated tussock in the Chiltern Mount Pilot Park, which borders the Rutherglen Chiltern Serrated Tussock Project area. No serrated tussock has been found in the Park area to date.

## Highlights

The development of the Rutherglen Chiltern Serrated Tussock Project 'Terms of Reference' and 'Memorandum of Understanding' and signing off by all partner agencies has been a highlight for the year. These documents formalise the committee's purpose and its role in leading the challenge to eradicate serrated tussock from the Rutherglen Chiltern area.

Treatment of all known infestations has been completed during spring and autumn extension and compliance programs.

An application for the State Compliance Team to conduct an inspection and compliance project in the Rutherglen area was successful and will be implemented in 2008/09.

## Issues

A number of infestations are located on local government roads. It is important that the issue of responsibility to manage these sites is resolved quickly and that funding for their treatment is allocated in 2008/09



*An off duty DPI program manager found serrated tussock growing in the front yard of a Benalla home*



*A DPI officer removing serrated tussock plants from the front yard of the Benalla home*

# State Government Programs

## North Central Catchment

### Background

There are 15 recorded Serrated Tussock infestations in the North Central Catchment Management Authority region.

The first Serrated Tussock infestation in the North Central CMA region was recorded in 1992, on private property near Redesdale. The landowner says the infestation was discovered in about 1988, and eventually infested some 50ha. The infestation now has scattered plants covering approximately 1 ha. It is not known how the infestation occurred, however, the movement of fodder is suspected. Today, the Serrated Tussock at the site is under control with emerging plants treated twice yearly. The site is part of a 1,000 ha property, approximately 9 km north west of Redesdale. The property is currently used for grazing and cropping, and consists of sedimentary, yellow duplex soils.

The two Bridgewater infestations are situated between the end of Lily Street, and the Loddon River. One infestation is mainly on Crown Land leased to the adjacent landowner, scattered plants have also been found on this freehold property. The other infestation is approximately 30m over the water race on Department of Sustainability and Environment managed land. These infestations were first recorded in October 2000. Approximately 50 plants have been recorded at the sites, and all plants have been treated annually since their detection. Photographs of the site taken on or before June 1998, show it was graded, this may be how serrated tussock arrived at the site.

The Harcourt infestation is located approximately 5 km north of Mount Alexander. This infestation was found by the landowner in 2005 and consists of about 35 scattered Serrated Tussock plants over approximately 1 ha of private property. The site is located on private property which is currently used for grazing, and is predominately granitic hills. It is unknown how the plants arrived, however movement of stock or wind dispersal are the likely vectors. Inspections of the surrounding area will be undertaken over the coming months to ascertain if there are other infestations on nearby hills.

An infestation of 25 plants on a roadside in Kyneton was found in January 2007. Plants have been removed annually by DPI officers, and the adjoining property owner notified of the infestation. In Kyneton there are three other infestations consisting each of one plant, which are removed at the time of inspection each year

There are three infestations between 10 and 17 km south of Maryborough. At one of these sites 11 plants were removed when last inspected in April 2008. The other two sites consisted of individual plants which were removed at the time.

The Northern Hwy infestation is located 15 km south of Elmore. When last inspected, the site on the Northern Hwy consisted of three plants which were removed at the time. Vic Roads has been made aware of the infestation.

*Infestations have been mapped using Google Earth to enable quick assessment of infestations, and ease of viewing by others. Please refer to figure 1.*

# State Government Programs



## Isolated Infestations Program

The opportunity for funding through the Isolated Infestation Project, was taken up by two landowners with dense infestations of serrated tussock. The funding was granted for landowners to implement long term control measures on their properties, including revegetation, fencing, and pasture improvement.

The landowner near Redesdale received \$600 for control measures, pasture improvement, and revegetation. The landowner at Harcourt received \$8,240 for fencing and revegetation. These works will help maintain competition, which will reduce the likelihood of reinfestation. Revegetation is also likely to reduce the movement of seed by wind.

## Compliance

All affected landowners have been cooperative by controlling infestations when required. All properties were inspected in accordance with the Catchment and Land Protection (CaLP) Act 1994. All landowners committed to and undertook treatment of current infestations subsequent to the first visit. Direction Notices have not been issued as all property owners have been compliant in treating the infestations.

Notices of Inspection were issued for a group of 7 properties in the Kyneton area where Serrated Tussock was reported to be growing. The properties were found to be free of serrated tussock.

## Roadsides

Vic Roads are aware of Serrated Tussock in the North Central Catchment and on the Northern Hwy, and have assisted in placing Serrated Tussock signs on the McIvor Hwy and Calder Hwy. Vic Roads are passing on GPS information about all roadside weed infestations they treat in North Central, including serrated tussock. At this stage they have not reported any serrated tussock.

# State Government Programs

## North East Catchment (continued)

### Extension and Awareness

An Article '**War on Weeds Continues**' was published in Agscene in October, promoting the upcoming serrated tussock field day in Langley.

A Grassy Weed Field Day was held at Langley near Kyneton on 27th October 2007. The field day was held in conjunction with the Baynton Sidonia Landcare group and Macedon Ranges Shire Council. Approx 30 participants were provided with information on identification and management of serrated tussock, Chilean needle grass and Texas needle grass as well as a site visit.

The article '**Grassy Weeds Tackled at Landcare Field Day**' was published in local papers and Primary Voice in November 2007.

A media article '**Serrated Tussock: the Weed Invasion**' was published in a number of local papers in November 2007. The article outlined the problems with Serrated Tussock, and described new Serrated Tussock signs situated on the Mclvor Hwy and Calder Hwy.

### Landcare

Baiton-Sidonia Landcare Group supported the Grassy Weed Field day near Langley.

The Landcare coordinator for Mount Alexander Shire Council and Macedon Ranges Shire Council was provided with maps and information of serrated tussock infestations in the North Central Catchment.

The Loddon Shire Landcare coordinator is aware of the Bridgewater infestation.

### CMA

The North Central Catchment Management Authority have sent the Serrated Tussock Weed Management Guide to all Landcare groups in North Central, and provided them with a DPI contact.

### Public Land Managers

There is one infestation of serrated tussock on public land, situated at Bridgewater. Plants have been controlled in the past with the Good Neighbour Program funding. But in 2007 / 2008 plants were removed by a DPI officer during site inspection.

### Highlights

All known serrated tussock plants in the North Central Catchment were treated in 2007-08 prior to seed set. The number of plants have been reduced at most sites. Revegetation works are planned at the Harcourt site where more plants were found this year.

### Issues

Serrated Tussock may have spread by wind especially at one site with hilly terrain. Plans are being made to inspect adjoining areas.

# State Government Programs

## East Gippsland Catchment

### Background

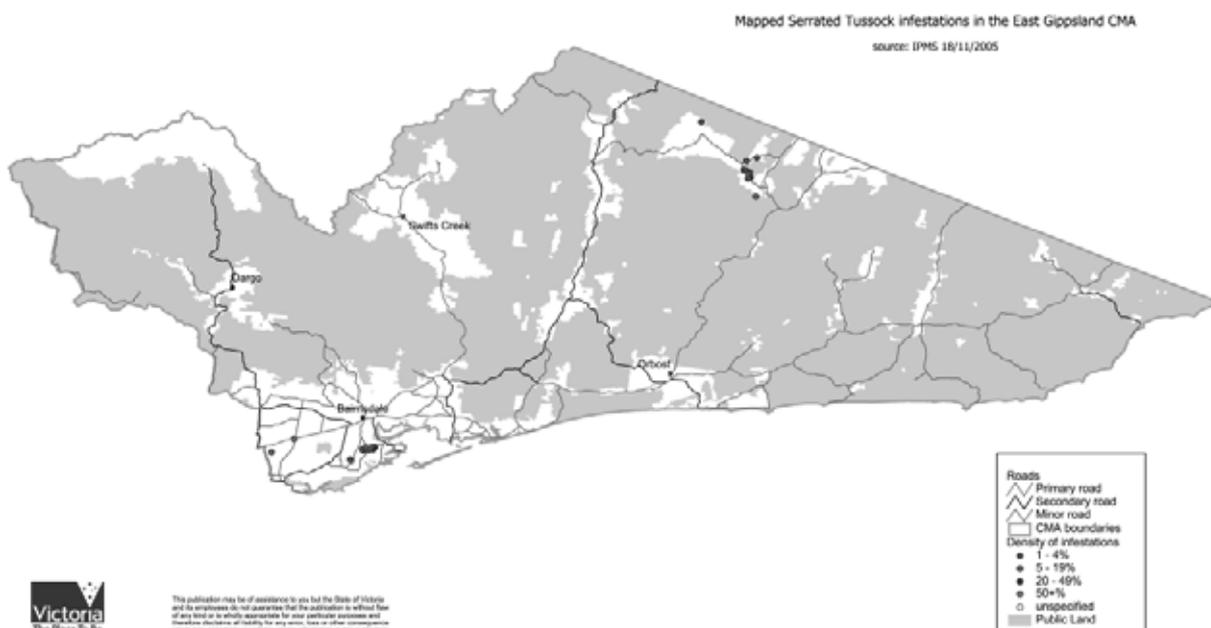
Serrated tussock is found in two distinct areas of the East Gippsland Catchment. One of these sites is south of Bairnsdale on the Red Gum Plains and the other is around the remote settlements of Tubbut and Bonang in far East Gippsland. Geographically and climatically these two sites are vastly different with the far east infestations germinating and flowering later in the season. Landowners in both areas are active in attempting to eradicate serrated tussock from East Gippsland.

There are 19 infestations in the Bairnsdale area and DPI have been working with landowners in a concerted and ongoing way since 2000. Infestations occur on predominately flat to undulating land primarily used for beef and sheep farming. The infestations of serrated tussock are scattered across between 0.5ha and 50ha

There are 11 infestations located around Tubbut and Bonang in far East Gippsland and DPI have been working with local landowners and public land managers for many years with a more concentrated effort since 1995. Infestations occur in steep rocky land primarily used for beef and sheep farming. Some of the properties are over 1000ha in size. The infestations of serrated tussock range are scattered across 0.5 ha and 150 ha

### Isolated Infestations Program

Through the Defeating the Weed Menace Initiative, five East Gippsland landowners were successful in obtaining over \$30,000 in incentive grants for pasture improvement, chemical control and cultivation work on their properties. Continuing with their success from last year in combating and eradicating serrated tussock from their 103ha beef farm, Brett and Jackie Grumley this year have again been successful in obtaining a grant. This year's program consisted of fencing out De-Tracey Creek with the plan to plant trees in this area to minimise any seed spread. Spraying, cultivating and cropping 14.5ha.



# State Government Programs

## East Gippsland Catchment (continued)

### Good Neighbour Program

The Good Neighbour Program provided \$5,940 for roadside spraying in Far East Gippsland. The work was successfully undertaken by contractors.

### Compliance Program

The Mobile Compliance Taskforce provided support to East Gippsland staff in the implementation of the 2008 Serrated Tussock Program. Nineteen properties on the Red Gum Plains south of Bairnsdale were inspected in July. A high level of control was achieved in this year's program with eleven landowners treating serrated tussock prior to inspections. The remaining eight landowners were issued with Directions Notice's. Second inspections are due to commence in September 2008.

"Operation Clean Sweep" in Far East Gippsland is set to commence in August 2008 in the remote areas of Bonang West, Tubbut, Deddick, Dellicknora and Cabanandra. This program will involve 50 landowners covering 23,000ha. Inspections will be undertaken over a two week period involving staff from both Gippsland Catchments with support from the Mobile Compliance Taskforce. The aim of the program is to fully ascertain the presence of serrated tussock in the area and increase the communities' knowledge and capacity in identifying and controlling serrated tussock. Currently there are 11 known infestations in the area, which have been monitored, with all visible plants removed continually since 1995.

### Roadsides

There are no known infestations of serrated tussock on rail easements in East Gippsland. Inspections will take place to validate this belief in 2008.

DPI has continued to work with VicRoads to ensure all infestations of serrated tussock on VicRoads roadsides are treated.

### Local Government

East Gippsland Shire are supportive of the eradication program. There are very few serrated tussock plants found on shire roadsides. These plants have either been treated when contractors have been spraying African Lovegrass or adjoining landowners have removed the plants.



*Brett and Jacqui Grumley fenced out De Tracey Creek and will be planting trees in this area using funding received from the Defeating the Weeds Menace Isolated Infestations project.*



*Brett and Jacqui Grumley also cultivated paddocks and planted annual pastures using the funding received.*

# State Government Programs

## Extension and Awareness

Serrated tussock awareness and management was a key feature in the landscape protection display at the East Gippsland Field Days held over two days in April 2008. A live specimen was on display and Pest Management Officers fielded many questions about identification and treatment options and were able to demonstrate how to identify serrated tussock from other *Nassella* species and native tussocks.

As part of "Operation Clean Sweep," that focussed on infestations of serrated tussock in far East Gippsland, Pest Management Officer, David Krajca presented information on serrated tussock to two landcare groups in the Bonang and Deddick River area. These meetings provided local landowners with the opportunity to access best management practice information and allowed DPI to reinforce the importance of vehicle and machinery hygiene when travelling between infested properties on the NSW side of the State border to Victorian properties. Landowners were also briefed on "Operation Clean Sweep" and the role they can play in the effort to eradicate serrated tussock from far East Gippsland.



*A field day held in East Gippsland raised awareness of serrated tussock.*

Craig Clutterbuck visited East Gippsland during 2008, where he met with local government representatives and landowners to discuss the VSTWP and the Defeating the Weed Menace Initiative.

Media Release: '**Tackling Serrated Tussock Head On**'  
Primary Producer - Bairnsdale Advertiser 5/5/08

## Landcare

The Snowy River Interstate, Bonang, Deddick and Romawi Landcare groups continue to be vigilant and motivated towards eradicating serrated tussock from East Gippsland. Groups have invited DPI to attend meetings to provide information on best management practices and to hone the community skills in identification techniques. Landcare staff have also been active in promoting the serrated tussock program and encouraging landcare members to talk to their neighbours about serrated tussock and the persistence needed to eradicate this troublesome weed.

## Public Land Managers

The Crown Land Management section of DSE continues to actively work at eradicating serrated tussock in the Forge Creek and Tom's Creek Reserves. Eradication activities are scheduled to coincide with with DPI's compliance programs to support the tenure blind catchment focus on serrated tussock.

## Issues

Drought conditions across the Catchment posed problems for landowners planning to cultivate and crop areas as part of a long term strategy to eradicate serrated tussock from their properties. This was particularly evident in the Far East Gippsland.

# State Government Programs

## West Gippsland Catchment

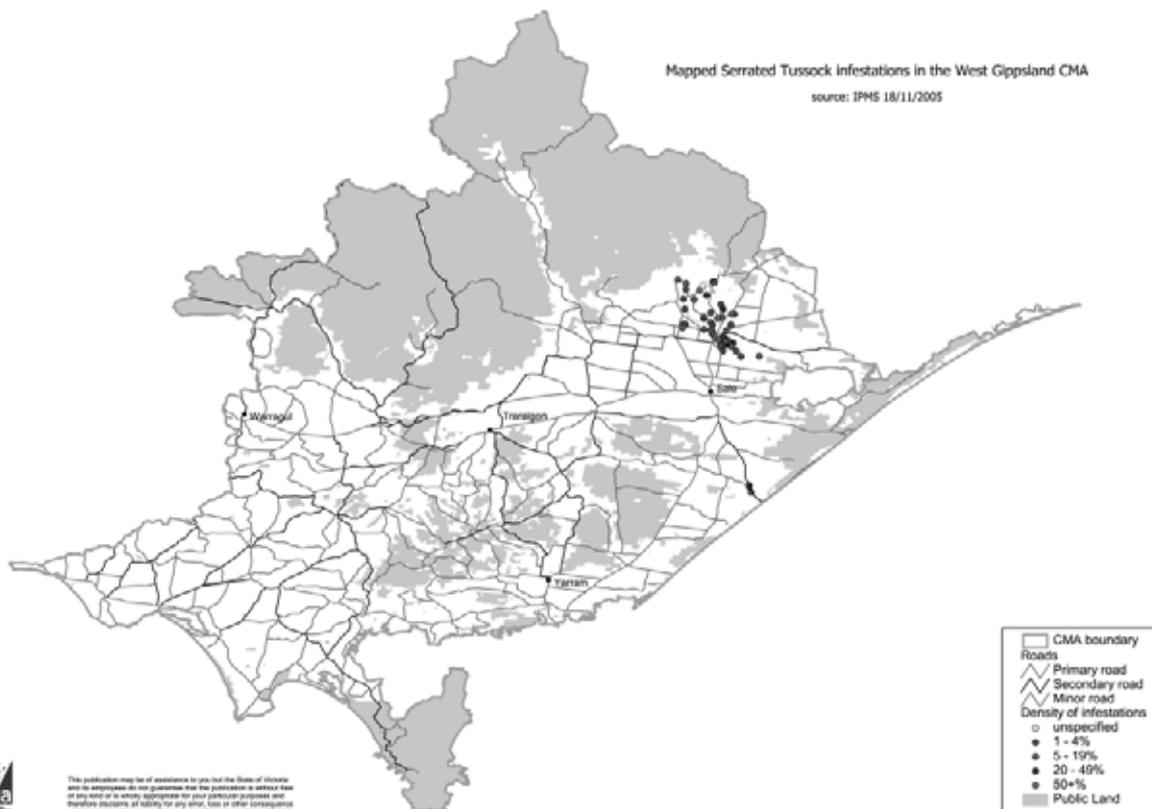
### Background

In the West Gippsland Catchment serrated tussock occurs predominantly on freehold land around Briagolong, Maffra, Llowalong, Seaspray and Stratford. Anecdotal evidence suggests that serrated tussock was introduced during the early 1900's to the Redbank Road area near Stratford by stock transported from the Monaro Plains in NSW. Due to the isolated nature of the serrated tussock infestations in the West Gippsland Catchment, eradication is considered feasible within the next ten years if we remain working closely with affected land managers. Flowering takes place during October and seed dispersal occurs approximately one month later.

There are currently 100 known infestations on freehold land and 69 of these infestations (properties) are included in DPI's annual compliance program. The remaining 31 infestations (properties) have demonstrated to DPI pest management officers that they have long term serrated tussock control programs in place and are part of a group of landholders under voluntary compliance activities. These landholders are contacted annually to ensure they remain vigilant with their serrated tussock control programs.

The annual serrated tussock compliance program covers 3,420 hectares with infestations ranging from 2 hectares to 200 hectares. Infestations occur on flat to undulating terrain used for both sheep and beef cattle grazing.

Serrated tussock compliance and extension programs have been undertaken in the area since 2005 and the benefits of the good working relationships between landholders and DPI staff are starting to become apparent.



# State Government Programs

## Isolated Infestations Program

Through the VSTWP Incentive Grants, five West Gippsland landowners were successful in obtaining \$50,160 in incentive grants for soil cultivation, pasture improvement, chemical control, fencing and tree planting on their properties. Wally VanRuiswyk of Stratford was successful in receiving a VSTWP Incentive Grant for \$15,260 for chemical control, fencing, soil cultivation and pasture improvement on his property at Redbank Road in Stratford. As part of the grant he has boom sprayed 50 acres with flupropanate, spot sprayed/chipped 150 acres with glyphosate and cultivated/re-sown 3 separate paddocks totalling 100 acres with new pasture. Wally has also erected new fencing and has planted trees as shelter belts along these new fence lines. During previous years' Wally has struggled to complete his serrated tussock control work but through continuous communication, education and extension visits, he has treated over 95% of the serrated tussock infestation on his property.'

## Good Neighbour Program

All known Serrated Tussock infestations on roadsides in West Gippsland were treated under the Good Neighbour Program between June 2007 and October 2007. The work was successfully undertaken by licensed contractors.

## Compliance Program

Staff from the Mobile Compliance Taskforce assisted Gippsland Invasive Plants and Animals Team undertake their 2008 serrated tussock compliance program.

In West Gippsland 69 properties were inspected in July covering 3,420 hectares with the owners of 30 properties placed under notice to complete control works.

The owners of 24 properties (37 individuals) received Direction Notices.

The owners of 6 properties (12 individuals) received Land Management Notices.

Notices of Intent to Enter (NITE's) for follow-up inspections were issued on the 5th of September. Follow-up inspections were undertaken between 16th to 18th September. The owners of 20 properties (35 individuals) complied with their notices by completing their serrated tussock control work as required.

The owners of 7 properties (10 individuals) were issued with additional Direction Notices despite properties having completed over 80% of control works. This was to ensure all work was completed prior to serrated tussock seed set in mid October.

Owners of 2 properties (3 individuals) are in the process of compliance entries being initiated. The owner of 1 property (1 individual) will be issued an Infringement Notice for failing to comply with a Direction Notice. This landowner was also issued with a Land Management Notice.

The local community, Landcare Groups/Networks, Department of Sustainability and Environment, public land managers, Vic Roads, Parks Victorian and the West Gippsland Catchment Management Authority (WGCMA) continue to play an integral role in the ongoing serrated tussock control program throughout the catchment.

Eight new properties with infestations were identified as a result of this program and the owners will be included in next years serrated tussock compliance program.

Three properties previously identified as under long-term voluntary compliance, will be included back in the 2009 compliance program as they have become complacent in controlling their serrated tussock voluntarily.

# State Government Programs

## West Gippsland Catchment (continued)

### Roadsides

Licensed contractors sprayed all known Serrated Tussock infestations on roadsides as part of the Weeds for Trees program.

### Railways

There are no known infestations of serrated tussock on rail easements in West Gippsland. Inspections will take place to validate this during 2008 and 2009 as part of the Linear Reserves Program.

The Department of Primary Industries has continued to work with Vic Roads and the Wellington Shire Council to ensure all infestations of serrated tussock on roadsides are treated.

### Extension and Awareness

Serrated tussock education and awareness were a key focus in the Landscape Protection display at the Lardner Park (Farmworld) Field Days held over four days during early April 2008. A live specimen of serrated tussock was on display and Pest Management Officers were on hand to answer several questions about identification, control and ongoing management. Pest Management Officers were also able to demonstrate how to identify serrated tussock from other *Nassella* species, native tussocks and grasses.

A presentation was given at a Landcare meeting held at Ellinbank during March 2008 with approximately 40 people in attendance. The serrated tussock compliance program was explained and discussions held around identification, control and ongoing management.

Craig Clutterbuck visited West Gippsland during late February 2008. During his visit he met with Jane & Tony McNeilly from Seaspray who have received a VSTWP Incentive Grant. McNeilly's have undertaken concentrated control works including chemical control and soil cultivation aimed at eradicating serrated tussock from their property.

Media Release 1: **'Serrated Tussock Property Inspections Planned for July'**  
Gippsland Times - 25/6/2008.

Media Release 2: **'Help Prevent Seed Set of Serrated Tussock'**  
Gippsland Times - 3/9/2008.

### Landcare

The Maffra & Foothills Landcare Network and the Local Area Weed Reference Group continue to support the serrated tussock eradication program. DPI staff emphasise to these groups the importance of ensuring that all serrated tussock plants are effectively treated prior to seed set.

# State Government Programs

## CMA

The West Gippsland CMA has provided ongoing support to the Serrated Tussock compliance and extension programs as key stakeholders through investors.

## Public Land Managers

Department of Sustainability and Environment crown land management staff continue to actively align their serrated tussock work in the Knob Reserve at Stratford and the Stratford Cemetery with DPI's annual compliance program.

## Highlights

Active surveillance following the floods in Gippsland has identified several target areas which will be involved in an extension/education property visit during late October.

## Issues

Lack of annual rainfall around Maffra and Stratford posed risks of crop failure where landholders have elected to cultivate and sow improved pastures as part of their long-term eradication program. The lack of rainfall also threatened the effectiveness of chemical application particularly flupropanate.



1: Wally Van Ruiswyk's property undergoing pasture renovation as part of the VSTWP Incentive Grants



2: Wally Van Ruiswyk's property following spot spraying with glyphosate as part of the VSTWP Incentive Grants



3: Darren Town's property following sod seeding as part of the VSTWP Incentive Grants



4: Darren Town's property following tree planting and new fencing as part of the VSTWP Incentive Grants

# State Government Programs

## Goulburn Broken Catchment

### Background

Serrated tussock was first discovered in the Goulburn Broken Catchment almost a decade ago and this infestation has been contained. The main infestation in the Catchment occurs along the South West boundary between the Port Phillip and Goulburn Broken Catchments and a few isolated infestations can be found North of this area.

### Isolated Infestations Program

There were no applications received for the Defeating the Weeds Menace 'eradicating serrated tussock isolated infestations' initiative partly due to the small size of serrated tussock infestations on private land.

### Good Neighbour Program

The Goulburn Broken Catchment received \$500 of Good Neighbour Program funding that was used to spray serrated tussock on roadsides in the Mitchell and Strathbogie Shires in Autumn 2008.

### Compliance Program

Three infestations, previously unknown to DPI, were recorded in the 2007-2008 year. Two of these infestations were reported by off-duty DPI weeds staff.

The first was a lone plant found on a property at Kilmore. The second infestation was located in a private garden in Benalla. The landowner had deliberately planted serrated tussock more than 10 years ago unaware that it was a pest plant. More than 50 plants were found in nearby gardens having spread from seed and through the gardener transplanting them. Although the tussock had "been doing a great job keeping the couch grass out" the owner was quite happy to comply with DPI and the plants were destroyed. The third new infestation was found in Wandong, as part of the Hume Highway extension project. The landowner removed all the plants immediately.

Eleven properties in the Goulburn Broken that were previously known to have serrated tussock were reinspected in August and September 2007. All land managers of these properties complied with requests from DPI and all serrated tussock was removed. There was no need for directions notices to be issued.

Initial inspections for the next season began in June 2008.

Five of the properties were reinspected, inspections are continuing.

No enforcement was necessary for private landowners in the 2007-2008 year in the Goulburn Broken Catchment.

### Roadsides

In the 2007 season VicRoads received two Land Management Notices for the Hume Highway and the Goulburn Valley Highway. Works were undertaken by VicRoads to successfully control the weed.



# State Government Programs

The work by DPI in the previous 2006 and 2007 seasons imparted the seriousness of the issue to VicRoads, such that in the 2008 season they took measures to ensure compliance before the need for any notices.

## Extension and Awareness

An extension program targeting 37 properties bordering the Hume, Goulburn Valley and Maroondah Highway was implemented in the 07/08 year. Landowners were notified of the risks their property faced, and offered assistance in the identification of serrated tussock and advice on management of the weed. In all 18 kilometres of highway frontage was inspected. Only one property was found to have serrated tussock.

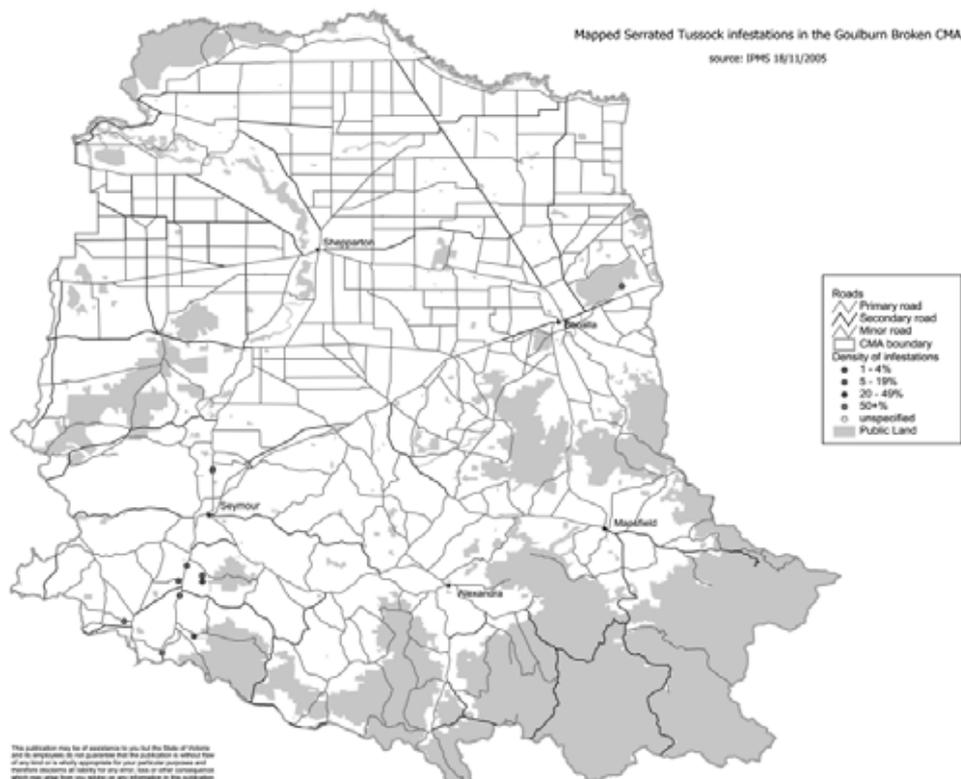
Most new reports of serrated tussock in the Catchment originate from spray contractors, shire officers and DPI officers.

As serrated tussock is not widespread in the Goulburn Broken Catchment, DPI staff have continually worked to improve the knowledge of other staff and landholders in serrated tussock identification, prevention and control. In doing so, two serrated tussock identification tours were organised for Goulburn Broken DPI team members to expand their knowledge of serrated tussock.

In raising awareness of serrated tussock a joint Port Phillip & Goulburn Broken Catchment article on the need for landowners to keep an eye out for serrated tussock was highlighted in the Winter 2008 edition of "Kilmore Weeds and Seymour Trees" newsletter by the Mitchell Shire Council.

Other media articles released include:

- **'Stamping out Serrated Tussock'** published in newspapers around the Catchment.
- **'Serrated Tussock Found in Benalla'** published in newspapers in and around the Benalla area.
- **'Serrated Tussock Busted in Benalla'** published in the DPI internal news.
- **'Goulburn Broken Catchment 2008 Final year of Funding for Serrated Tussock Control'** published in newspapers around the Catchment.



# Mobile Compliance Taskforce

The Department of Primary Industries mobile compliance team will be providing additional compliance support to active groups strategically managing pests under the Victorian Government's Weeds and Pests Initiative (WPI) 2008 – 2009.

A mobile team of DPI extension and compliance staff will be working in partnership with stakeholders to ensure that land owners failing to meet their responsibilities for pest management do not jeopardise the effort and investment of the surrounding land managers.

Stakeholders including community weed groups were involved in selecting projects that were assessed by representatives of Biosecurity Victoria's Invasive Plants and Animals (IPaA) Branch, the Victorian Catchment Management Council and Landscape Protection. The following projects were selected and now being implemented;

- **Gorse control** – Broomfield (North Central Catchment)
- **Gorse and blackberry** – Merton, Swanpool, Broken River, Creightons Creek (Goulburn broken Catchment)
- **Serrated tussock** – Toolern Vale, Diggers Rest, Bulla (Port Phillip Catchment)
- **Serrated tussock** – Rutherglen (North East Catchment)
- **Serrated tussock** – Seaspray, Maffra, Bairnsdale (East and West Gippsland Catchments)
- **Blackberry** – Glenelg River, Dergholm (Glenelg Catchment)
- **Gorse** – Ross Creek (Corangamite Catchment)

**Maps of the Mobile Compliance Project Areas are available at [www.serratedtussock.com](http://www.serratedtussock.com)**



# Grow West Recovery Program

## “Grow West plantings are part of a long-term integrated control solution for serrated tussock”

Grow West is a large-scale landscape protection program targeting the Upper Werribee Catchment. The program was officially launched in 2003 and since then over 1,600 hectares of degraded land has been transformed in the district. The Grow West vision is to conserve and/or revegetate 10,000 hectares of land and native vegetation in the target area by 2030.

The Serrated Tussock Working Party has been a committed supporter of Grow West since the program was conceived by concerned landholders, community groups and stakeholder organisations in the late 1990's. Initially the VSTWP provided direct financial support to help establish the Grow West Program and today continues this support by directing the resources of the Department of Primary Industries Serrated Tussock Compliance Program to support on ground control works.

Grow West plantings are part of a long-term integrated control solution for serrated tussock. Plantings that are now 6 or 7 years old are successfully shading out once dense infestations. Plantings also limit the spread of serrated tussock by catching seed blown by the wind and reducing new recruitment through competition.

- During 2007-2008, Grow West implemented 73 hectares of biodiversity plantings and 68 hectares of farm forestry plantings.
- These totals were achieved with the help of many community groups and organisations - Victorian National Parks Association, Conservation Volunteers Australia, Friends of Werribee Gorge and Long Forest Mallee and Vicroads.
- Grow West was also supported by a number of corporations looking to give back to the community. Revegetation projects were sponsored by e-Tree, Origin Energy, and Vic Super.
- Early in 2008 Grow West published a revegetation guide titled **Revegetation: what to plant, where and how – In the Moorabool Shire Area**. This guide teaches land owners the basics of species selection and planting techniques so they can implement their own revegetation projects.
- Grow West's Benchmark Monitoring Project was completed in June 2008. The study identified 67 fauna species inhabiting the Grow West study sites at Yaloak Estate and the W.James Whyte Island Reserve including: 51 bird species, 12 mammals, 2 reptiles and 2 amphibians. The project highlighted the need for Grow West to employ a comprehensive monitoring system so that landscape change and improvements in biodiversity can be recorded.

In 2008-2009, Grow West will continue to focus on restoring the erosion-prone landscapes of the Rowsley Valley and creating biolinks to connect the Lerderderg State Park with the Werribee Gorge State Park and the Brisbane Ranges National Park. One of Grow West's larger projects will result in conservation and revegetation works carried out on 35 hectares infested with fluprofonate resistant serrated tussock and stunted boxthorn in the Rowsley Valley.

# Mexican Feather Grass

**“Even less palatable than serrated tussock, Mexican feather grass has the potential to infest a larger area across Australia”**

Large retailers in Victoria are under investigation for selling the suspected State prohibited weed, Mexican feather grass (*Nassella tenuissima*).

Mexican feather grass was discovered for sale by a Department of Primary Industries (DPI) officer in a large retail outlet in May 2008. Since this discovery, more plants suspected of being Mexican feather grass have been found and recovered from a number of large retail stores across Victoria.

A DPI Incident Management Team has been set up in Bacchus Marsh to manage the weed incursion. Authorised officers are taking control of suspect plants which are being securely stored and on grown until they reach maturity so their identity can be confirmed.

As positive identification of ornamental grasses can be difficult, DPI is also actively investigating the use of DNA analysis to assist in the expedient identification of non-flowering suspect plants..

Mexican feather grass is closely related to serrated tussock, one of Australia’s worst agricultural weeds. Even less palatable than serrated tussock, Mexican feather grass has the potential to infest a larger area across Australia than that already occupied by its widespread relative..

**Anyone who may have purchased individual pots labelled `Regal Sensations` *Stipa Capitata`* or a grass sold as part of a group of plants in an ornamental display in a ceramic tea cup and saucer or an imitation terracotta pot please call DPI on 136 186.**



# National Initiatives

## Land Managers Helped Develop The National Serrated Tussock Best Practice Manual

Over 180 land managers took part in eight workshops across New South Wales, Australian Capital Territory and Tasmania in 2007 to develop a National Serrated Tussock Best Practice Manual.

The workshops enabled land managers to discuss their own situations with qualified pest management staff and researchers and learn about serrated tussock management that was specific to their situation.



The anecdotal information sourced from land managers participating in the workshops has contributed to the development of the National 'Defeating the Weed Menace – Serrated Tussock Best Practice Manual.' Other information to form the manual is being taken from research and existing serrated tussock publications.

**The comprehensive manual will become a vital tool for land managers in the fight against serrated tussock. The manual is due to be released in November 2008 and land managers can obtain a copy by contacting DPI on 136 186.**

## National Natural Resource Management Conference

The Department of Primary Industries Landscape Protection team adopted a colourful and informative approach to promote Victorian Community Weeds and the Weeds of National Significance programs at the National Natural Resource Management conference held at the Melbourne Cricket ground (MCG) on the 15-16 April 2009.

The display included information and plant samples of serrated tussock attracting the attention of Natural Resource Management (NRM) staff from across Australia. DPI staff were able to discuss the Victorian serrated tussock program and other management programs for invasive species with NRM representatives.

Positive feedback was received about our display which successfully promoted two of DPI's leading invasive plant programs.



# Future Farming Initiative

**“1.2 million will be used for the project: supporting community led action on pests through voluntary compliance”**



On the 23rd April 2008 Premier John Brumby and Agricultural Minister Joe Helper launched the Government's \$205 million four year Future Farming Strategy that will boost farming services, drive growth and innovation in agriculture and help the sector respond to new challenges.

The Future Farming Strategy sets out new investment built around seven key actions to provide farmers with the tools they need to make their business grow.

Included in the \$205 million is \$24 million to manage pests and includes new action plans to assist businesses to strengthen land and water management.

Of the \$24 million, \$1.2 million will be used for the project: 'supporting community led action on pests through voluntary compliance.' This project encourages community pest management groups; the Victorian Serrated Tussock Working Party, Victorian Blackberry Taskforce and Gorse Taskforce to take a lead role in the management in their species in target areas.

The funding will be used to build the capacity of community pest management groups to respond to pests and increase extension programs in target communities by running workshops and producing education material.

**Further information on the Future Farming Initiative can be obtained by contacting the Department of Primary Industries on 136 186 or by visiting [www.dpi.vic.gov.au](http://www.dpi.vic.gov.au)**



# Serrated Tussock Partnerships Officer

## Educational material

The Victorian Serrated Tussock Working Party is responsible for the production and updates of serrated tussock educational material which is often used by DPI Pest Management Officers in explaining the identification and control of serrated tussock to landholders. The Working Party is currently developing a new serrated tussock identification brochure due to be published early in 2009.

## Awareness raising events

The VSTWP often hosts and attends events which will raise awareness of serrated tussock. The hosting of serrated tussock field days on a landholder's property has proved most effective in teaching landholders how to identify and control serrated tussock, often field days lead to neighbours discussing ways they can battle serrated tussock together.

## Local Government meetings by Catchment

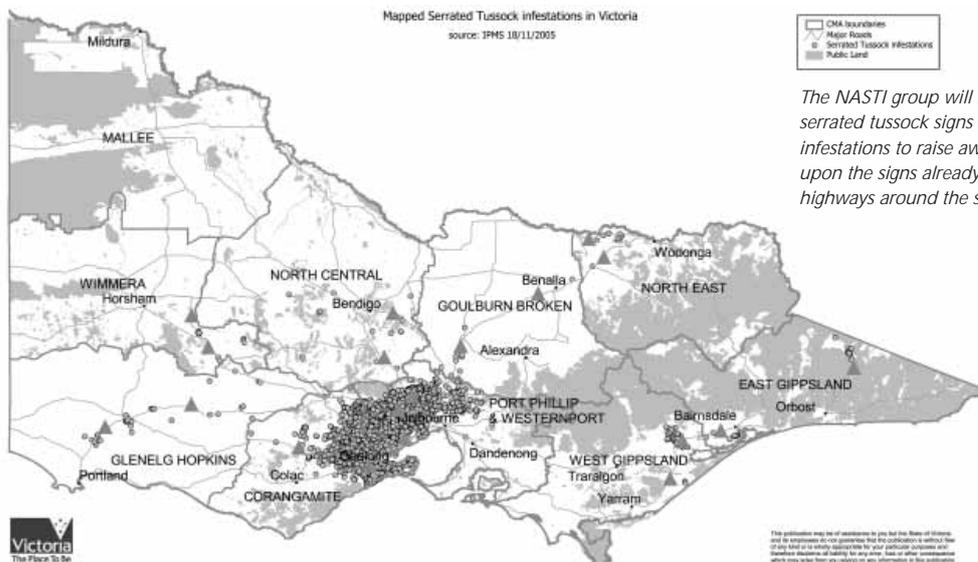
The role of the partnerships officer employed by the VSTWP works to develop partnerships between key stakeholders, a part of this role is to assist local governments with their serrated tussock programs by providing them with the opportunity to discuss serrated tussock with DPI, Catchment Management Authorities, the VSTWP and other councils.

**The partnerships officer, Chelsea will set up the first of regular meetings with councils early in 2009.**

## NASTI – Northern Alliance Serrated Tussock Initiative

In April 2008 the Northern Alliance Serrated Tussock Initiative (NASTI) Group was developed to provide assistance to local governments in delivering their serrated tussock programs. The group made of the Department of Primary Industries, The Victorian Serrated Tussock Working Party, Port Phillip and Westernport Catchment Management Authority and environmental officers from the City of Whittlesea, Nillumbik Shire Council, Macedon Ranges Shire Council, Mitchell Shire and Hume City Council meet quarterly to discuss serrated tussock extension activities and develop new signs for the Port Phillip Catchment.

The NASTI prompted the installation of new signs as an incentive for land managers to 'identify, control and report serrated tussock' as is stated on the new signs funded by the Victorian Serrated Tussock Working Party. The installation and launch of the signs is expected to happen in 2009.



# Research Activities

The Victorian Serrated Tussock Working Party supports research into serrated tussock exploring integrated control methods such as chemical control, grazing management, mechanical treatments and biological control. The VSTWP also supports a research project into resistant serrated tussock plants to the herbicide Flupropanate.

## Biological Control

A project investigating potential biological control agents for Chilean needle grass (*Nassella neesiana*) and serrated tussock (*Nassella trichotoma*) in Australia has been underway since 1999.

Surveys in Argentina have identified three rust fungi (*Puccinia nassellae*, *Uromyces pencanus* and *Puccinia graminella*) showing promise for control of *N. neesiana* and a rust (*P. nassellae*), a smut (*Ustilago* sp.) and a crown rotting fungus (*Corticaceae*) as possible biological control agents of *N. trichotoma*. Unfortunately the prospects for biological control of serrated tussock are proving to be problematic. The virulence and host specificity of *P. nassellae* (ex *N. trichotoma*) are questionable. Similarly, the potential of *Ustilago* sp. as a biological control agent is limited, due to technical difficulties regularly encountered in inoculation experiments and the low incidence of the disease commonly observed in the field.

**“Unfortunately the prospects for biological control of  
serrated tussock are proving to be problematic”**

Further research into the taxonomy, biology and life cycle of the *Corticaceae* fungus is required before it can be considered as a biological control candidate for *N. trichotoma*. In contrast, both *P. nassellae* (ex *N. neesiana*) and *U. pencanus* are easy to rear, cause considerable damage to Chilean needle grass and appear to be host specific from preliminary testing undertaken so far. Trials are continuing to further investigate the *P. nassellae* and *U. pencanus* life cycles. *P. graminella* can be very damaging, appears to be quite host specific from the literature and is autoecious, completing its life cycle on Chilean needle grass. Techniques for mass production of *P. graminella* are currently being investigated as urediniospores are not known from its life cycle.

Currently, biological control of serrated tussock is unlikely due to host specificity, virulence and mass rearing issues. However the biological control of Chilean needle grass is feasible having identified an appropriate rust fungus, *Uromyces pencanus*.

Host specificity testing has begun with approximately 20 species being tested with a further 33 to go. Several difficulties have been encountered with the project such as quarantine regulations in Australia changing so the testing had to be done in Argentina but several attempts in negotiating to send our plants to Argentina have failed.

David McLaren, Senior researcher for Biosciences Victoria, Department of Primary Industries travelled to Argentina in November 2007 to visit SENASA (Argentinean equivalent to Australia's AQIS) and discuss the research project. As a consequence alternate ways of completing the testing are being explored and contact has been made with the Centre of Agriculture and Biosciences International.

*(continued over page)*

# Research Activities

## Chemical Control – Herbicide Resistance

Research conducted by the Department of Primary Industries has confirmed that populations of serrated tussock in Victoria and New South Wales have developed resistance to the herbicide, Flupropanate.

Nine out of four hundred respondents to a national serrated tussock herbicide resistance survey reported resistance to Flupropanate. Two Victorian properties and one New South Wales property are now confirmed with resistance.

**“...resistant serrated tussock will produce almost exclusively resistant seed”**

Laboratory trials have shown that the resistant serrated tussock is 10-20 times more tolerant of flupropanate than susceptible serrated tussock. Inheritance studies show that serrated tussock resistance to flupropanate can be transmitted through pollen (1:2:27 ratio of resistant: intermediate resistant: to susceptible) but this is limited as the vast majority (>90%) of the panicle seeds produced by serrated tussock are self crossing and only 5-10% are actively crossing. This means that resistant serrated tussock will produce almost exclusively resistant seed.

The results highlight the importance of destroying resistant plants before they seed. This research has prompted concentrated serrated tussock control programs by the Victorian Department of Primary Industries and New South Wales Shires to attempt to contain or eradicate the resistant serrated tussock populations.

During 2008, the Victorian Serrated Tussock Working Party supported a serrated tussock paddock/roadside survey that has been undertaken around one of the Victorian properties identified with serrated tussock resistance to Flupropanate.

In total, 580 serrated tussock plants were collected from an area of 100sq km away from the property confirmed with resistance. The plants have been collected, potted and are being grown in a glasshouse. They have been treated at the recommended rate of Flupropanate (2lt/ha) and compared against Flupropanate susceptible serrated tussock plants. The results will be available at the end of 2008.



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## Biological Control

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## Chemical Control

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# EverGraze Program

EverGraze is a National program that is developing and testing new farming systems in different environments across southern Australia. The aim of the program is to increase profits of sheep and cattle enterprises by up to 50% and improve water management, use of perennials, biodiversity and soil health.

Several research teams in Southern Victoria are testing new farming systems measuring soil, water, pasture and livestock inputs and outputs. Out of the 6 proof sites, 3 are testing sown exotic perennial species and 3 are working on existing native perennial pastures.

Lisa Miller, an agronomist at the Department of Primary Industries is coordinating a support site in Ballan which aims to improve native perennial grasses through grazing techniques that will reduce the amount of serrated tussock seedlings from germinating.

The use of Flupropanate to target serrated tussock will also kill wallaby grass and spear grasses which are the two main pasture species growing in the Moorabool Gorge where the Ballan support site is situated. Without these species, there's no pasture competition and large areas of bare ground that serrated tussock will easily re-establish. It only takes 5 years for serrated tussock to get back to the density at which it was originally sprayed.

The secret to preventing serrated tussock establishment was unlocked by NSW Agriculture which discovered that the size of the seedbank or seed source had no influence on whether seedlings develop into mature plants but rather the amount of live pasture cover maintained in the paddock is the key to preventing serrated tussock growth. To put this in perspective, a million seeds per metre can germinate but all will die if there is enough pasture cover to keep them weak so that they die over summer.

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# EverGraze Program (Continued)

In the NSW trials, the amount of pasture needed in spring was greater than 2 tonne of dry matter/ha which allowed at least 0.5 t of DM/ha to be maintained over summer. The pasture cover targets were only able to be maintained using rotational grazing and competition from live pasture is what is required to kill off any remaining seedlings.

Lisa is basing her new grazing strategy on the results of the 'steep hills' project at Ararat which found that different spring deferred grazing treatments increased native grass content by up to 40%. The strategy to be tested will be to defer grazing from October until the autumn break to allow the native grasses to set seed and regenerate. They also hope that the treatment will also kill out any serrated tussock seedlings where there is enough species to provide competition. Rotational grazing using moderate stocking densities of 20-30 DSE/ha will be used from the autumn break to October aiming to maintain 90% groundcover and 0.8 t DM/ha.

Stock containment should not only be used in times of drought but used in the management of serrated tussock. The supporting site has been funded through EverGraze which is a Future Farm Industries CRC, MLA and AWI research and delivery partnership and DPI.

**To find out more about EverGraze go to [www.evergraze.com.au](http://www.evergraze.com.au).**

## The Chilean Needle Grass Slasher Cover

A cover has been developed to fit over slashers reducing the amount of Chilean needle grass (*Nassella neesiana*) seed spread along roadsides by 99%.

RIMT University conducted a trial in Sunbury which found a slasher with a cover collected 122 Chilean needle grass seeds over a distance of 200m. Over this same distance a slasher without the manufactured cover collected 16,212 Chilean needle grass seeds.

Although the slasher cover has been specifically designed to reduce seed spread for Chilean needle grass it has the potential to reduce seeds spread of other species such as the closely related serrated tussock (*Nassella trichotoma*).

The slasher modifications are very basic and the success of the trial could mean that the slasher become a mandatory fitting for land managers and contractors.



**For more information on the slasher covers please visit the agricultural note available at [www.dpi.vic.gov.au](http://www.dpi.vic.gov.au).**

# Flupropanate Found to Affect Acacia Seedlings

A trial conducted by Dr David McLaren, Kelly Snell and Kym Butler in the Rowsley valley, Western Victoria between 2004 and 2006 measured the affects of native tree susceptibility to an aerial application of the herbicide Flupropanate for the management of unpalatable grasses such as serrated tussock.

Five native species were planted as seedlings in the trial including; grey box (*Eucalyptus macrocarpa*), yellow gum (*Eucalyptus leucoxyton*), black wattle (*Acacia mearnsii*), varnish wattle (*Acacia verniciflua*) and drooping sheoak (*Allocasurina verticillata*).

Three rates were applied: no flupropanate, 1.49kg a.i. ha<sup>-1</sup> and 2.98 kg a.i. ha<sup>-1</sup>. The rate of 1.49kg a.i. ha<sup>-1</sup> resulted in 2.5% tree mortality and the rate of 2.98 kg a.i. ha<sup>-1</sup> showed 5% tree mortality.



Flupropanate application reduced tree height in drooping sheoak and varnish wattle and substantially reduced the height in black wattle from 1160cm to 440cm which also showed signs of yellowing and deformity. There were no noticeable impacts to the other species.

The trial concluded that it is possible to use Flupropanate for the selective control of serrated tussock amongst seeding *Eucalyptus* and sheoak species, however it is recommended that the lowest possible Flupropanate rate is used to reduce off target spray over *Acacia* species.

## Understanding the Relationship Between Government and Land Managers

In July 2007 Sonia Graham, a PhD student at Charles Sturt University in Wagga began a PhD titled "Collective action in community-based natural resource management: the role of good working relationships and trust". The aim of the project is to investigate how working relations between landholders and government agencies can be fostered in natural resource management in rural Australia. In particular, the PhD is focussed on trusting relationships around the issue of serrated tussock. The study primarily involves: 1) interviewing landholders and staff of government agencies; and 2) attending meetings of communities and government agencies involved in Natural Resource Management.

In April 2008, Sonia spent over two weeks in the Corangamite and Port Phillip and Westernport Catchments in Victoria. During this time Sonia interviewed 33 people about their experiences with serrated tussock and attended 3 community group meetings including the meeting of the Victorian Serrated Tussock Working Party which she regularly attends. Sonia is planning to conduct similar interviews with land managers and representatives from government in New South Wales for comparison in early 2009.

The results are expected to assist with effective partnership development for the serrated tussock programs in Australia.

Sonia Graham is conducting her PhD by distance through Charles Sturt University in Wagga and is hosted by CSIRO Sustainable Ecosystems in Canberra.

# Compliance Program Summary

## Corangamite Catchment

Properties Inspected	414
Hectares Inspected	38603
Hectares Infested	3160
Notice of Intent to Enter issued	490
Directions issued	94
Penalty Infringement Notices Issued	15
Land Management Notices issued	5

## Port Phillip Catchment

Properties Inspected	468
Hectares Inspected	56039
Hectares Infested	18979
Notice of Intent to Enter issued	631
Directions issued	281
Penalty Infringement Notices Issued	12
Land Management Notices issued	83

## Wimmera Catchment

Properties Inspected	10
Hectares Inspected	1077
Hectares Infested	8.3
Notice of Intent to Enter issued	14
Directions issued	0
Penalty Infringement Notices Issued	0
Land Management Notices issued	0

# Compliance Program Summary

## North Central Catchment

Properties Inspected	37
Hectares Inspected	217
Hectares Infested	20
Notice of Intent to Enter issued	6
Directions issued	0
Penalty Infringement Notices Issued	0
Land Management Notices issued	0

## East Gippsland Catchment

Properties Inspected	31
Hectares Inspected	1770.6
Hectares Infested	202
Notice of Intent to Enter issued	116
Directions issued	13
Penalty Infringement Notices Issued	0
Land Management Notices issued	3

## West Gippsland Catchment

Properties Inspected	65
Hectares Inspected	1590.4
Hectares Infested	137
Notice of Intent to Enter issued	211
Directions issued	8
Penalty Infringement Notices Issued	0
Land Management Notices issued	4

# Compliance Program Summary

## North East Catchment

Properties Inspected	414
Hectares Inspected	38603
Hectares Infested	3160
Notice of Intent to Enter issued	490
Directions issued	94
Penalty Infringement Notices Issued	15
Land Management Notices issued	5

## Goulburn Broken Catchment

Properties Inspected	16
Hectares Inspected	462.2
Hectares Infested	96.2
Notice of Intent to Enter issued	0
Directions issued	0
Penalty Infringement Notices Issued	0
Land Management Notices issued	4

## Glenelg Hopkins

Properties Inspected	39
Hectares Inspected	1172.9
Hectares Infested	27
Notice of Intent to Enter issued	47
Directions issued	40
Penalty Infringement Notices Issued	0
Land Management Notices issued	0

## All catchments

Properties Inspected	1109
Hectares Inspected	104209.7
Hectares Infested	22643.2
Notice of Intent to Enter issued	1588
Directions issued	431
Penalty Infringement Notices Issued	27
Land Management Notices issued	99

# Financial Account

## Statement of Receipts and Payments for the year ended June 2008

2008	\$
<b>Income</b>	
Grant Receipts	334,720.00
Interest received	24,430.58
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<b>Total Income</b>	<b>359,150.58</b>
<b>Expenses</b>	
Accountancy	-
Bank Fees and Charges	-
Insurance	-
Interest – Australia	4.46
Printing & Stationary	-
Project Costs/Payments	340,585.21
Staff Training	-
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<b>Total Expenses</b>	<b>340,585.21</b>
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<b>Net Profit from ordinary activities before income tax</b>	<b>18,565.37</b>

\*Note: Due to emergency response to bushfire, locusts, drought and the movement of staff to new positions there were delays in the delivery of projects like the Defeating the Weed Menace Isolated Infestation Project and expenditure of Working Party accumulative revenue. Extensions have been granted by the Federal Government for the Defeating the Weed Menace Isolated Infestation Project and all of the Working Party funds are committed to new initiatives in 2008/2009.



# Appendices

## Appendix One

### VSTWP Members 2007 – 2008

**Peter Lindeman**

Chair VSTWP, community representative

**Jim Seager**

Vice Chair, community representative

**John Webb Ware**

Treasurer, community representative

**James Pettit**

community representative

**Veronica Burgess**

community representative

**Graham Simpson**

community representative

**Brian Frawley**

community representative

**Andrew Browne**

community representative

**Byron Crowe**

Executive Officer / Serrated Tussock Project officer, DPI

**Chelsea Wardrope**

Serrated Tussock Partnerships Officer, DPI

**David McLaren**

Biosciences Victoria, DPI

**Charles Grech**

Biosciences Victoria, DPI

**Leigh Dennis**

Corangamite Catchment Management Authority

**Peter Bufton**

Corangamite Catchment Management Authority

**Duncan McDonnell**

Port Phillip and Westernport Catchment Management Authority

**Neil Smith**

Project Manager, Pest Management, DPI

**Andrew Hodges**

Policy Officer Pest Plants, DPI

**David Boyle**

Manager Victorian Community Weeds, DPI

## Appendix Two

### Stakeholders

Aerial Sprayers Association

Australian Weeds Advisory Committee

Ballarat Courier

Barwon Water

Connex

Corangamite Catchment Management Authority

Department of Primary Industries

Department of Sustainability and Environment

East Gippsland Catchment Management Authority

Fodder Industry

Glenelg Hopkins Catchment Management Authority

Goulburn Broken Catchment Management Authority

Grains Industry

Grassland Society of Southern Australia

Greening Australia

Groundsprayers Association

Landcare Groups

Landcare Networks

LaTrobe University

Leigh Catchment Group

Local Governments

Meat and Livestock Association

Melbourne Water

Merri Creek Management Committee

MLAC Environment Committee for Moorabool Shire

Moorabool News

Municipal Association of Victoria

National Serrated Tussock Management Group

North Central Catchment Management Authority

North East Catchment Management Authority

Northern Alliance Serrated Tussock Initiative Group

NSW Department of Primary Industries

NSW/ACT Serrated Tussock Group

Parks Victoria

Port Phillip and Westernport Catchment Management Authority

Powercor

Rutherglen Chillern Serrated Tussock Group

Southern Farming Systems

Telstra

The Miner Newspaper

Vic Forest

Vic Roads

Victoria University

Victorian Farmers Federation

Victrack

Weeds Society of Victoria

Weekly Times

West Gippsland Catchment Management Authority

Wimmera Catchment Management Authority



Victorian  
**Serrated Tussock**  
Working Party  
**progress report 2008**

For more information on the Victorian serrated tussock program please contact the  
DPI customer service centre on 136 186 or visit [www.serratedtussock.com](http://www.serratedtussock.com)