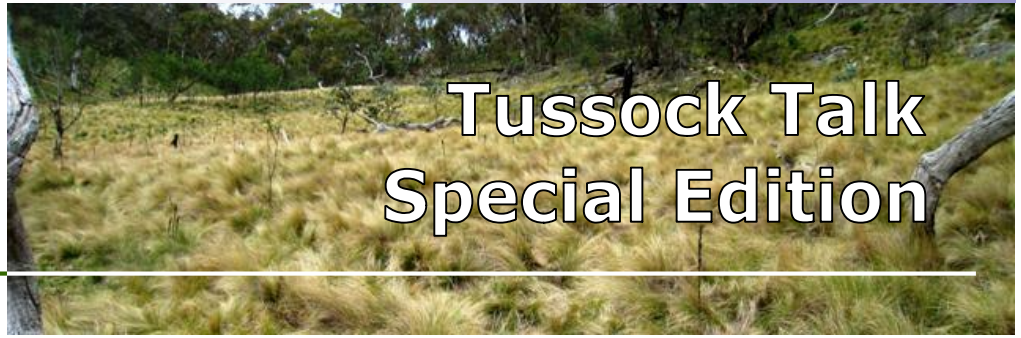


In this special edition we focus on the people in and around the Tussock Tamer project and the Upper Lachlan area.

Special Edition

March 2013

Serrated Tussock Working Party for NSW and ACT



Tussock Tamers

Serrated tussock is a serious environmental, economic and social menace in the Upper Lachlan. Yes, it can be controlled but to make lasting headway, we need to attack it together. As well as a legal obligation to do so, it is most of all about being a good neighbor.

In this special edition of Tussock Talk we bring you some tips, contacts and inspirational stories to help you on the way to beating your serrated tussock problem.

Whether you are new to rural life or have been in the game for decades, the people in and around the Tussock Tamer Project are always good value. Tussock Tamers is based on three beliefs:

Firstly, long term management of serrated tussock needs a well thought out plan that takes into account your particular area and circumstances.

Secondly, we can only make inroads into this problem if everybody works together.

Thirdly, it requires sustained effort by of all of us. Tussock Tamers aims to create community awareness of the serrated tussock problem and gain commitment from everybody to make their best effort to tackle it. That's why Tussock Tamers is giving people the opportunity to join others in locally based short courses on natural resource management, weed control and property planning.

For more information and to register just go to:

www.tussocktamers.com



SERRATED TUSOCK

Serrated tussock (*Nassella trichotoma*) is the worst perennial grass weed in Australia. Serrated tussock impacts on productivity and biodiversity. Serrated tussock devalues land!

Why you should care?

Because serrated tussock control costs the community millions of dollars.

For farmers, there are production losses and the cost burden of control activities. For the general public, there is a loss of amenity and of benefits of biodiversity, and the costs of control activities on public land. The long term consequences of inadequate action will be severe for the community, and dire for those affected, as they have been for rabbit and prickly pear devastation in the past.

Serrated tussock is a weed with no boundaries. It moves on the wind, under vehicles and machinery, on animals and on clothing.

In a pasture it has no nutritional value; animals grazing on serrated tussock alone can die of malnutrition.



CARING
FOR
OUR
COUNTRY



Thompson's Legacy

Serrated Tussock in the Ladevale District

Serrated Tussock comes from South America and is thought to have arrived in Australia in the early 1900s, possibly in saddle packing. Its first official recording was made in Yass, around 24kms away from Ladevale, in 1935 and it was usually referred to as Yass River Tussock.

The *Sydney Morning Herald* of 18 February 1937 reported that the Goodradigbee Shire Council weed inspector had surveyed the district for Yass River Tussock which had only recently been identified as *Nassella trichotoma*. The noxious weed inspector, Mr. S.O. Buckmaster said he had found the weed on three different properties covering a total of 230 acres. On this area the weed was very thick, and appeared to have taken possession. It would grow and thrive on flats, but seemed to like poor loose shaley hills. Other than the areas mentioned he had not seen or heard of it anywhere else in the shire. Nor had he seen anyone in the shire who knew anything of the weed further back than, say, 12 or 14 years.

What about closer to home here in Ladevale? Sid Hillier came to live at nearby *Woodlands* in Iron Mines Rd in the early 1930s and has known the area all his life. He remembers the weed from an early age but always knew it as Thompson Tussock – after Yass River Road farmer Bert Thompson who had a bumper crop of it on his property.

The weed increased its hold both locally and in the wider district during the 1940s. In May 1949 the Pastures Protection Board was trying to get a change of name for Yass River Tussock. The Board said it extended far beyond the Yass River district and had become a State wide pest.

It had certainly become a pest in at least some parts of Ladevale by then. Sid says the problem became more severe around 1949 when a Berrebangalo farmer who owned what is now *Yellangalo* and adjoining areas decided to attack moderate infestations of Serrated Tussock by rotary hoeing his property and leaving it for two years. This significantly worsened the problem. Sid, who lived to the west of the seed bank area says his family chipped Serrated Tussock around three times a year. This kept the weed from taking over despite its prevalence elsewhere.

Harold Hazell who has lived at nearby *Chain of Ponds* for 87 years also knew the weed as

Thompson Tussock. Harold did not have to deal with the weed until May 1976 when he bought a block near *Yellangalo* which had been part of the Berrebangalo holdings. He and son Tery have been able to keep Serrated Tussock under control by persistent chipping until last year when, due to pressure of other commitments, they resorted to spraying for the first time.

What advice do Harold and Sid have for today's tussock fighters? Both have successfully kept the weed suppressed without chemical help for long periods. The weed never went away but never got the upper hand because persistent chipping was an integral part of their farm management. Harold has always carried a mattock with him, be it on horse, bike or foot and says "Always chip a tussock when you see it because it won't be there when you go back next day".

Sid agrees that regular maintenance chipping is the way go. Like Harold, he also stresses the importance of not allowing mature seed heads to get away. A final point Sid makes is that you must ensure the chipped tussock has all the soil removed from its roots. If the soil is really damp, Sid would bag the tussock and keep it under observation until it is long dead. He has known chipped tussock to get its roots back in the soil and re grow. "Chipping once is OK" said Sid, "but doing it twice is monotonous.



Mature serrated tussock plant in seed showing the purple seed heads.

A wise man once told me:

- Tussock control is not for the Weeds Officer. It is for us and our kids.
- Serrated tussock is easy to kill. Getting started is the hard part.
- Once is not enough. We have to keep looking around for the ones that 'got away'.

Serrated tussock on “Yellangalo”

Michael and Alison Nicholls came to *Yellangalo* from Sydney in 1989. *Yellangalo* was well and truly infested with serrated tussock and it was very evident elsewhere in the area. They knew before buying the property there was a major weed issue and were prepared to tackle it. The Nicholls sought professional advice by approaching NSW DPI to help develop a plan of attack.

From around 1978 the management of serrated tussock has been enhanced by the use of flupropanate herbicide.

Unfortunately in 1998 flupropanate (Frenock®) was withdrawn from sale for commercial reasons, creating a large gap in control options. NSW DPI evaluated the efficacy of glyphosate and how best to use this herbicide for serrated tussock management. Alison and Michael agreed for NSW DPI to carry out some of the herbicide trials on *Yellangalo*. The research showed that glyphosate can be an effective tool for managing serrated tussock and as a result of these trials and others on the Monaro several glyphosate products were registered for serrated tussock control. Flupropanate was returned to the market in 2000.

Despite the fact that you could not buy flupropanate in the late 1990's, the Nicholls had a quantity of Frenock® on hand which they continued to use it in a strategic manner. During the 1990's they had done extensive broadacre spraying to help reduce the serrated tussock load. They also owned a rotowiper which proved a useful way of selectively removing serrated tussock from their native based pastures. NSW DPI convinced them that the best way to have the edge on serrated tussock in the longer term was to work towards sowing down introduced pastures across the arable areas of the property.

The process involved spraying out paddocks in the spring in preparation for crop the following autumn. The Nicholls often cropped paddocks with triticale for 1 - 2 years before sowing them down to phalaris/ocksfoot/fescue/subclover pastures. The presence of introduced grass species allowed the use of low rates of flupropanate to selectively remove any newly emerging serrated tussock seedlings.

The key message is that spot spraying is really our most selective tool available so it is critical that paddocks containing scattered serrated tussock are never allowed to reach the stage of a dense infestation. Once paddocks, particularly non arable areas containing native pastures become dominated by serrated tussock, there are no straightforward, low cost solutions

Due to the high cost of pasture renovation and the fact that paddocks are out of production for up to 12 months it was only possible to make changes slowly. However the Nicholls were committed to trying to turn *Yellangalo* around.

There are still paddocks on *Yellangalo* which are less arable and contain some native pasture species. These areas have proven more difficult to manage

because the herbicides registered for use can be very damaging to native pasture species. Whenever considering the spraying of a non-arable paddock badly infested with serrated tussock it is important to look for desirable background species as these that will help outcompete the tussock. Wherever feasible, choose a spray strategy that will do as little damage as possible to the background species.

The key message is that spot spraying is really our most selective tool available so it is critical that paddocks containing scattered serrated tussock are never allowed to reach the stage of a dense infestation. Once paddocks, particularly non arable areas containing native pastures become dominated by serrated tussock, there are no straightforward, low cost solutions available.

Help with life after tussock

As well as whacking those weeds, it is important to prevent their return by ensuring you have good ground cover to out compete them. Tree belts and pastures can be among the options you consider. For help with revegetating your land and maintaining resilient pastures, for production and the environment contact:

The Lachlan Catchment Management Authority

Boorowa office: 6253 3035

www.lachlan.cma.nsw.gov.au

Greening Australia

Capital region: 6253 3035

www.greeningaustralia.org.au/community/capitalregion

Chemical control recommendations for

Spot treatments to destroy serrated tussock

Product	Rate	Timing	Comments
Chipping	Nil	All year	Avoid excessive soil disturbance.
Glyphosate 360 g/L	0.7 to 1.3L per 100L water	All year	For optimum control apply to actively growing stress free plants only.
Flupropanate 745 g/L	150-200 ml per 100L water	All year	Seed set may be prevented with the addition of glyphosate.
Flupropanate + gly-phosate 360 g/L	150-200ml flupropanate + 120 ml glyphosate per 100 L water	Sept-Nov	Glyphosate will prevent seed set 2-8 weeks prior to seedheads emerging.

Areas needing broadacre treatment to kill and replace

Product	Rate	Timing	Comments
Glyphosate 360g/L	4-6 L/ha	All year	Best results apply to actively growing stress-free plants. Use wetting agent if suggested on label.
Flupropanate 745 g/L	1.5-2.0 L/ha	Sept-March June - August	Ground application Use water rates 80-150L /ha. Use lower rates on slate/granite or lighter soil types. Use higher rate on heavy basalt and alluvial soils. Winter application – avoid application in very dry winters.
Flupropanate 745 g/L	1.5-2.0 L/ha	Sept-March June - August	Aerial application Use water rates of 35-80L/ha. In difficult country use higher rates of water, anti-drift additives and larger droplets. Refer to other notes under Ground application above.
Flupropanate 745 g/L	1:20 via a rotating wiper	Sept-March June - August	Rotating wiper Graze heavily prior to treatment to ensure a height differential. In dense serrated tussock, stock may not graze heavily and some pasture damage may result. Apply as a single or double pass.

Notes:

- ◆ The addition of a wetting agent may enhance the efficacy for some glyphosate products (check individual labels).
- ◆ Herbicides should be applied to tussocks with plenty of green leaf.
- ◆ In winter time do not spray on moist cloudy days, spray after dew has gone and before noon.
- ◆ Larger plants can shade smaller plants, allowing the smaller ones to survive, repeat applications may be necessary.

This information provided in these tables is to be used as a guide only. Remember to check the label, check all rates, critical comments and stock withholding periods that are applicable for your situation.

serrated tussock (Nassella trichotoma)

Broadacre treatments to selectively remove serrated tussock seedlings from introduced pastures

Product	Rate	Timing	Comments
Flupropanate 745 g/L	500ml – 2L /ha	Sept-Feb	Boom spray using water rates 80-150 L/ha depending on topography. Use lower rates for slate or granite soil. Serrated tussock plants must be less than 10cm high and less than 80 leaves. Apply before pastures 'bolt' in the spring flush or Dec- Feb when some introduced pastures are dormant.

Note:

- Seedlings are susceptible to low rates of flupropanate. In all cases use conservative stocking rates and maintain a vigorous pasture. Seedlings of serrated tussock are susceptible to shading.

Broadacre spraytopping treatments to prevent seeding

Product	Rate	Timing	Comments
Flupropanate 745 g/L + glyphosate 360 g/L	1.5-2L/ha flupropanate + 0.6-1.25L/ha glyphosate	Sept-Nov	Ground boom spray or aircraft. Will kill serrated tussock and reduce seeding. Use a wetting agent.
Glyphosate 360 g/L	0.75-1.25L/ha	Sept-Oct	Apply to actively growing and stress free plants. Apply 2-8 weeks before seedheads emerge. Add a wetting agent. Will NOT kill but will reduce seeding. The lower rates will be less damaging to desirable pasture species. If seedhead emergence is imminent then higher rates will give better results.

Note:

- If flupropanate is applied after August, serrated tussock is likely to set viable seed. To prevent seeding the addition of a knockdown herbicide may be applicable where it is acceptable to damage associated pasture species.

Lifecycle of serrated tussock in NSW.

Darker shading in the table indicates the main season for that stage of the life cycle. The lighter shading indicates the extended seasons possible of the stages.

	Spring			Summer			Autumn			Winter		
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Germination												
Bleaching												
Flowering												
Seed set												

Identifying serrated tussock.

Serrated tussock is a difficult plant to identify and is easily confused with desirable native species. Accurate identification is essential.

The following tips may help or go online for more detail at: www.serratedtussock.com.au

If you are not sure contact your local weeds officer in Gunning: 4845 4100; Crookwell: 4830 1000 or Taralga: 4840 2099

Identification tips

- ◆ Tussocky grass up to 60cm tall
- ◆ Thin, tightly rolled, hairless leaves with very fine serrations
- ◆ Leaves roll smoothly between your thumb and forefinger
- ◆ White hairless ligule
- ◆ White swollen leaf bases
- ◆ Purple tinge to flower heads, later turning golden as the seeds ripen
- ◆ Weeping flower heads that break off at maturity
- ◆ Difficult to pull from the ground, even when small
- ◆ Small plants look like paint brushes springing out of the ground



Tackling serrated tussock successfully at “Arunda”

Don Thomas and Sue Mackenzie’s property *Arunda* is an immediate neighbour of *Yellangalo*. When they arrived in 2003 they knew there was a problem although perhaps not the extent of it.

Don says there were a number of elements to their serrated tussock control plan. Firstly, they wanted to minimise the number of plants getting to the flowering stage so they sprayed and chipped before seed set as much as possible. Secondly, they worked on their worst areas first. Thirdly, they recognised they must remain vigilant and continue their mopping up work.

Don and Sue have boom and spot sprayed with glyphosate and flupropanate depending on the season and extent of the infestation. They have also done a lot of chipping. But that is just part of the recipe for successful weed control – you also need to prevent its return. Don and Sue have undertaken a number of farm and pasture

management courses and put the lessons they learned to good use. Once the weed severity had decreased they did pasture renovation work to increase ground cover and help prevent its return.

Their efforts have been rewarded by some impressive improvements. That said, there is always more to do. Don says “While it is very rewarding to have the initial severe outbreaks under control there seem to be more 'person hours' maintaining the necessary vigilance. Boom spraying a big area and then watching it die is quick work but to stay on top we need to take every opportunity throughout the year chipping any plant we see while doing other work or just out enjoying the land. Sue likes her garden fork while I prefer my mini-mattock. In late summer & late winter we do a few weeks of strategic 'seek and destroy' spot spraying methodically covering the whole property.”

Where to go and who to see for help and information

Over the next few months there will be a number of Tussock Tamer weed workshops and field days held throughout the Upper Lachlan Shire. These free events will help you find the best ways to keep on top of Serrated Tussock and other weeds. They will be advertised in the Gunning Lions *Noticeboard*. The best way to keep abreast of everything coming up is to register at www.tussocktamers.com so you can get e-mail alerts as well as putting you in the running for a free day of weed spraying on your place.



Upper Lachlan Shire Council

If you think you have a weed problem or know you have one but don't know where to start, a really good place to go is your local weeds officer. Senior Weeds Manager, Paul Brown, and his team are happy to help you with weed identification and discuss developing weed management plans. You can contact them at:

Gunning: 4845 4100
Crookwell: 4830 1000
Taralga: 4840 2099

Keeping in Touch

- ◆ Get yourself on the Landcare address lists by emailing: mary@upperlachlanlandcare.com.au
- ◆ Check the fortnightly Gunning Lions *Noticeboard* which is distributed widely. They almost always advertise Landcare/natural resource management events open to the public. To receive it by e-mail send your contact details to: gunningnoticeboard@bigpond.com



No room for Serrated Tussock in this very well covered paddock.

Don Thomas and Sue Mackenzie with the Lachlan CMA's Christian Wythes and Genevieve Reardon.



Sue Mackenzie riding in the first Serrated Tussock area tackled on 'Arunda'. Six months before this the paddock had been boom sprayed with Glyphosate and when browned off it was grazed by goats. Shortly after the photo a brassica crop was sown, followed later by triticale. When the seasonal outlook was promising and tussock emergence low improved pastures were sown. It now needs only chipping and spot spraying.

Local Landcare

Getting involved in a local Landcare group is a great way to learn what is happening in your district and to meet other people in a friendly social setting.

Jerrawa Creek Landcare Group serves the area around Dalton, Jerrawa and Gunning, including the Ladevale district. Contact:

President: Genevieve Starr: 4845 6301 or
Secretary: Bob Spiller: 4845 8217

Jerrawa Creek Landcare is proud to be a member of the Upper Lachlan Landcare Network which is the umbrella body for all Landcare groups in our shire. To find out more about Landcare opportunities near you contact mary@upperlachlanlandcare.com.au or phone President Nerida Croker on 4834 2133.

nformation, information ...

There is a range of information available online. We suggest you have a look at the following:

www.serratedtussock.com.au

www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds

www.weeds.org.au/WoNS/serratedtussock

Your local NSW DPI office and the Lachlan CMA will also be able to help with publications and advice.

Spray Contractors and Merchandise

Aerial

If you have a large scale problem, aerial spraying may be your best solution. Scott Montgomery who helped with the *From Hoes to Helicopter Field Day* would be a very good point of first enquiry. He has eight years experience with aerial spraying programs in and around our shire and has lived here all his life.



Contact Scott Montgomery, Rotor Solutions Australia Pty Ltd
CROOKWELL 0417267856 or
1300 500 901
Email: info@rotorsolutions.com.au

Ground

Make sure you get your entry in the draw to win a free day of weed spraying by one of two local rural contractors, Martin Walsh and Nic Clancy of Clancy Contracting. Nic lives in Ladevale and Martin at Dalton. Both are members of Jerrawa Creek Landcare. Both businesses offer a number of rural services such as spraying and fencing. Their contact details are:

Nic: 4845 8235 or 0409 866 970
clancycontracting@bigpond.com

Martin: 4845 6352 or 0427 177 365

Rural merchandise

There are a number of reliable rural merchandisers in and around the Upper Lachlan Shire.

We are particularly grateful to the following for their support of the Tussock Tamer project.

Gunning Ag and Water

60 Yass St. Gunning. Phone: 4845 1113

Taralga Rural

Bannaby St, Taralga. Phone: 4840 2200

Thank you!

Jerrawa Creek Landcare thanks the following for their help in making this field day happen.

Alison Elvin, Natural Capital Limited

Fiona Leech, District Agronomist, Department of Primary Industries, Yass

Scott Montgomery and his colleagues Hugh, Monique and Mick from Rotary Services Australia

The Upper Lachlan Shire Council, particularly its Senior Weeds Manager, Paul Brown

The Lachlan Catchment Management Authority and especially Melissa Henry and Genevieve Reardon

Clare Hamilton, NSW & ACT Serrated Tussock Coordinator

Friends in the wider Landcare network, particularly Nerida Croker [President] and Mary Bonet [Landcare Support Officer] of the Upper Lachlan Landcare Network

Caroline Low and Rosie Fell for allowing us to hold the field day at *Yellangalo*

Harold Hazell and Sid Hillier for historical information about Serrated Tussock in our district

Sue Mackenzie and Brendan O'Reilly

John Brotchie, Ag Innovations

Martin Walsh and Nic Clancy

This project is supported through funding from the Australian Government's Caring for our Country for which we are very grateful.



CARING
FOR
OUR
COUNTRY



Disclaimer: This publication may be of assistance to you but Tussock Tamers and the Serrated Tussock Working Party for NSW and ACT do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequences which may arise from you relying on any information in this publication.