

victorian Landcare

Issue 11

Autumn 1999



The story of Savernake



Radial sawing

Farm forestry special



NOBODY'S
PERFECT
BUT OUR
REPUTATION IS
SPREADING



Improved Incitec Super. With a better range of granule sizes you get a superior spread. *Spread the word.*

Incitec
FERTILIZERS
Certainty. In an uncertain world.

CONTENTS

Business Management

Wade Hughes
Peter Walsh
Peter Sutherland

Editorial Group

Paul Crock (03) 9207 5555
Jo Safstrom (03) 9637 8394
Sally Gibson (03) 9412 5048
Brenan Wotherspoon (03) 9207 5555

Editorial Consultant

Tiffany & Associates (03) 9894 2169

Advertising Manager

Mark Saunders
Phone 0418 505 938

Design

Bouquet Productions Pty. Ltd.
Phone (03) 9376 0911, Fax (03) 9376 0922

Printing

Henry Thacker Print Group
Breakwater, Geelong.
Phone (03) 5248 3333, Fax (03) 5248 7222

Cover Photograph

Farm forestry at Leongatha 1998. NRE.

Contributions and mailing list enquiries

Victorian Farmers Federation
Landcare Section, Level 6 24-28 Collins Street,
Melbourne 3000
Phone (03) 9207 5555 Fax (03) 9207 5500
E-mail: paul.crock@vff.org.au

Victorian Landcare is published for the Victorian Landcare Community by the Victorian Farmers Federation, 24-28 Collins Street, Melbourne 3000. Articles may be reprinted provided *Victorian Landcare* is acknowledged. While every effort has been made to ensure the accuracy of statements in *Victorian Landcare* the Victorian Farmers Federation, its partners, agents, servants and contractors disclaim all responsibility for the statements quoted herein.



ISSN: 1327 5496

Letters

Page 5



Friends of the Broлга

Page 8

DIY trials

Page 10



Radial sawing

Page 13

Bright blue plantings

Page 18 & 19



Firewood feature

Page 20

Nagambie direct seeding

Page 22



Northern Mallee pipeline

Page 25

The Victorian Landcare magazine is a joint publication of the Victorian Farmers Federation, Alcoa of Australia Limited and the Department of Natural Resources and Environment, with the support of the Victorian Catchment Management Council and Greening Australia Victoria.



From the editors

Farm forestry is our feature for this issue. We have stories on bluegums, pines, forestry rights agreements, radial sawing and the economics of growing firewood. All of our writers recommend that planning and getting good advice is crucial for farmers embarking on a tree growing project. We hope you find these stories interesting and useful.

Tragedy at Linton

The tragedy at Geelong West is still fresh in our minds as we are writing this. Five CFA volunteers were killed fighting a fire at Linton last December. A tragedy of this scale affects the whole community and raises questions about the dangerous work that CFA volunteers do.

We commend the efforts of all CFA volunteers across the State. Their tireless work in protecting lives and property is a lesson to us all.

The bigger backyard

March is Landcare Month and this year's theme is 'Landcare – the bigger backyard'.

It is about looking over the fence and seeing the bigger picture. Landcare is certainly growing and spreading out – from the single group to partnerships, networks and catchment-wide projects.

Many groups are running field days and working bees during Landcare Month with the aim of generating local publicity, recruiting new members and, of course, getting the job done!

Another landcare partnership

We are pleased to announce that yet another landcare partnership has been forged in Gippsland with the recent marriage of one of our editors, Paul Crock. Paul married Sam Standfield at a lovely ceremony at Fish Creek last November. Sam is the daughter of Bruce and Marianne Standfield of Fish Creek, a noted landcare family!

I'm sure all of our readers are keen to join us in congratulating Paul and Sam and wishing them all the best for their future together. The landcare dynasty has begun!

SHADE

SALT

BUSH

BIRDS

TREES

WEEDS

BEES

BREEZE

IT ALL DEPENDS ON WIRE

Environmentally sensitive fencing has a vast protecting and nurturing effect. Because fencing can do so much...

...From safeguarding habitats of rare species to establishing windbreaks.

...From preserving wetlands and watercourses to controlling the use of different soils.

...From minimising erosion or revegetating salt flats to establishing wildlife corridors.

A few strands of wire. So ordinary. So extraordinary.

BECAUSE ITS POTENTIAL FOR CONSERVATION IS IMMENSE.

WARATAH[®]

HELPING CONSERVE OUR COUNTRY





Dear Editor,

I read Dr John Middleton's information about phylloxera with interest. Perhaps the following might be added.

We came to Australia in 1959 and moved on to a 300 acre block owned by the Wilson Brothers (combined ages 280 and still going very strong). The eldest, Bill, told me their father had managed for T.E. Brown of Green Hills and the estate at that time went from north of Toolern Vale to the Western Highway. As a boy, he frequently helped his father move stock over a wide area.

The Wilson's owned 104 acres of virgin bush not far from Green Hills which was not sold until after they died about 20 years ago; it was scrub, kept in good order by using it very judiciously. I remember one load of 60 cattle in the 1965 drought bought in a dying condition. They were turned into the precinct and walked out three months later in prime condition. Only one died, and worms, by their appearance, figured largely when they arrived. I did suggest to Bill that they be drenched when they arrived, but he was an old stockman of fixed (and very good) ideas and declined to do it.

Bill told me that the bush paddock, as we called it, was the same all the way to Melton when the first settlers came. A large area on the east side of the Toolern Vale - Melton Road area was cleared and put down to vines early on. Bill said the rainfall deteriorated when the bush was cleared over so much of the country. The vines succumbed to phylloxera and that was that. The loss of water must have contributed largely I feel, stressing the vine.

Another small item. On page 18 of the last issue a woman is working a burn-off with her head uncovered. I worked in the land army in the UK and learnt about how flammable hair is early – the prompt action by one of the other girls (nearly knocking me out in the process) saved me and my hair.

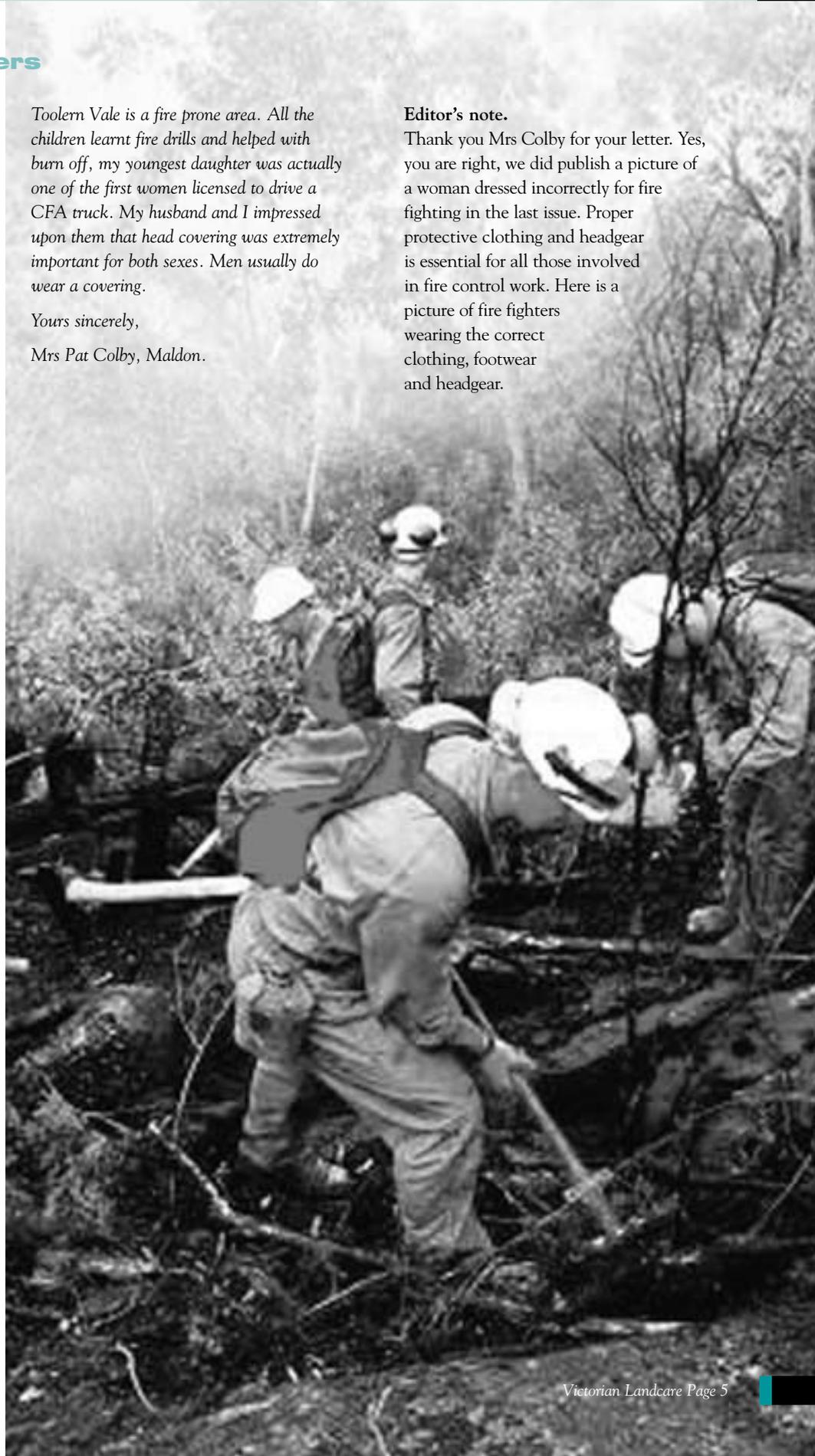
Toolern Vale is a fire prone area. All the children learnt fire drills and helped with burn off, my youngest daughter was actually one of the first women licensed to drive a CFA truck. My husband and I impressed upon them that head covering was extremely important for both sexes. Men usually do wear a covering.

Yours sincerely,

Mrs Pat Colby, Maldon.

Editor's note.

Thank you Mrs Colby for your letter. Yes, you are right, we did publish a picture of a woman dressed incorrectly for fire fighting in the last issue. Proper protective clothing and headgear is essential for all those involved in fire control work. Here is a picture of fire fighters wearing the correct clothing, footwear and headgear.



Forestry rights used for 'Power Plantations'



The new forestry rights legislation makes it easier for landowners to become involved in the growing private plantation sector. Many landowners have been unable to establish plantations due to the high capital costs and the long periods of time before returns.

Forestry rights are being used to separate the ownership of the trees from the ownership of the land on which they grow. Forestry rights allow for an agreement between the landowner and tree owner which can be registered as a covenant to the land. The covenant gives security to the tree owner by preserving their rights to the trees even if the land is sold.

Forestry rights have been used in Gippsland as part of the 'Power Plantations' project. Loy Yang Power and Ecogen Energy have established blue gum plantations on land owned by Gippsland Water.

'Power Plantations' is an initiative of Gippsland Farm Plantations (GFP). GFP is a federally-funded organisation that works with industry and growers to secure markets and investment in farm forestry.

The 'Power Plantations' project brings power companies and landholders together to establish trees which will help to tackle greenhouse emissions. The preferred model for the project involves generators providing funding for the plantations, landowners providing land on a commercial basis and Australian Paper guaranteeing a market for the mature trees.

Loy Yang Power Chief Executive, Bob Patterson, said the project would provide an impetus for further alliances between regional industry and stakeholders who had a commitment to improved environmental management in Gippsland.



Alex Arbuthnot from Gippsland Farm Plantations with Bob Patterson from Loy Yang Power at the launch of 'Power Plantations'.

Rob Willesdorf from Gippsland Farm Plantations says the forestry rights legislation provides a more secure investment for the tree grower. "We see many landowners keen to grow trees but they lack the capital. In the past investors would have bought or leased land, now they can enter into a forestry rights agreement with a landowner and be guaranteed their investment will be protected even if the land is sold."

According to Rob Willesdorf forestry rights agreements are also cheaper to prepare than lease agreements.

"There is no stamp duty on forestry rights and no need to survey the land. The agreement can be made on the basis of a map or plan acceptable to both parties."

"Forestry rights are an exciting development for farm forestry. The traditional, legal view of anything produced on the land is that it belongs to the landowner. Now, with forestry rights, we can start to separate what is produced on the land from the land itself."

For further information contact Rob Willesdorf at GFP on (03) 5143 0260.

IN BRIEF

International Landcare 2000 Conference and Exhibition

*Changing Landscapes
~ Shaping Futures*



Victoria is gearing up for this major event to be held from 2-5 March 2000 at the Melbourne Convention Centre. The conference will explore how communities around the world are acting locally to address issues such as sustainable agriculture, sustainable communities, biodiversity and greenhouse.

Australia's landcare movement is one of our proudest achievements. The conference will be a showcase of our skills and an opportunity to learn from and exchange with others.

People from the community landcare movement, Federal and State Government agencies, landcare sponsors, environmental groups, students, academics and consultants are urged to attend.

For further information please contact Waldron Smith Convention Network on (03) 9690 6744 or check the web site at <http://www.nre.vic.gov.au/conf/landcare2000>

Landcare exchange to Canada

In 1997 15 Canadians travelled through Victoria on a study tour looking at landcare and how we are working towards sustaining rural communities and the environment.

In July of this year a tour of Victorians are heading for Alberta, Canada to stay with farm families and exchange knowledge and ideas about landcare and rural communities. Visits to some terrific places are also included in the program with the Rocky Mountains, the prairies and the west coast near Vancouver on the itinerary.

The tour is being organised by Geoff McFarlane from Natural Resources and Environment in Shepparton.

Geoff says there are still places available and it is a fantastic opportunity to explore what is happening in rural Alberta, make some new friends and get to know the history and culture of this beautiful country.

Contact Geoff McFarlane at home on (03) 5831 3250 for full details of costs and the itinerary. Places close at the end of March 1999.

National Treefest '99 – finding common ground

Plans are underway for the biggest National Treefest yet, to be held at Leongatha, South Gippsland, Victoria, 24-26 September, 1999. This will be the fourth National Treefest and, according to Treefest Convenor, David Bennett, delegates and the general public will come away with the latest information on trends, research developments and equipment that relate to the many different aspects of growing trees.

National Treefest '99 will include speakers, static and working displays and field tours, showing the great potential of trees in a variety of end uses. The focus of Treefest is to promote the multiple values of trees and land management – production, protection, conservation and aesthetics.

If you are interested in coming along as a delegate, sponsoring or exhibiting, contact the Treefest '99 Committee, PO Box 110, Sale, Victoria 3850.

State Landcare Awards 1999

Look out for the Victorian Landcare and Farm Management Awards entry brochure available soon through your local CMA and NRE offices. Your landcare group, VFF branch and Shire Council may also be able to help.

To receive an entry brochure direct, call Awards Co-ordinator, Sally Gibson, at the Victorian Catchment Management Council on (03) 9412 5045.

Weedbuster Week

Victorians went wild for weeds late last year during annual Weedbuster Week. Over 50 weed-busting activities were run across the State with Parks Victoria, landcare groups, scouts, cubs, friends' groups and schools tackling specific weed problems and raising awareness of the problems they cause.

At Yarra Bend Park weed removal resulted in an historic find when small purslane was discovered. This small plant is known in the north-west of the State but hasn't been identified in metropolitan Melbourne since 1890!



*Minister for Conservation and Land Management,
Marie Tehan, with students from the Sophia
Mundi Steiner School at Yarra Bend Park
doing some serious weed-busting.*

New direction for brolga friends

*By Brian Joseph,
Past President,
Friends of the Brolga.*



What is it about the brolga (*Grus rubicundus*), or 'native companions' as they are often called, that makes western Victoria landowners invariably refer to them as 'OUR' brolgas?

Is it their trumpeting call? The dignity, grace and beauty as they gently stroll through the paddocks, or is it the opportunity of occasionally viewing their extraordinary mating dance when it's possible to believe that only puppet strings from heaven could allow for such acrobatic grace and beauty?

For all of these reasons a large group of landowners, amateur enthusiasts and crane specialists attended a public meeting at Beaufort in 1991 to form a Friends of the Brolga group (FOB). The group's aims were to find ways and means to measure, record and increase brolga numbers, learn more about their diet and habitat needs and ensure their survival into the future.

We have learned more about these birds during this time than we ever imagined. Bird counts and the keeping of calendars and nest records has produced a much greater understanding of brolga seasonal habitat needs.

The financial assistance from the Bird Observers Club of Australia, with donations from individuals, gave great encouragement to the FOB. In turn the FOB has assisted the Department of Natural Resources and Environment (NRE) in continuing their work on brolgas. NRE is now more aware of the number of landowners concerned with the environment and with the importance of Victoria's rural wetlands for brolga habitat.

The FOB has achieved its initial aims and have now joined forces with the VFF Farm Tree & Landcare Association. The merger sees the remaining funds of the FOB to go to the Farm Trees Group to help broadcast the importance of the brolga and its habitat through Victorian Landcare magazine. The magazine will help keep the whole landcare community abreast of the issues and information relating to this long-lived, slow-maturing species of bird.

In closing this chapter of the FOB, I would like to thank the many committee members over the years who voluntarily committed their time and contributed ideas to the group. Thanks also to NRE staff, sponsors, Land for Wildlife and the Bird Observers Club of Australia. Most importantly thanks to all those members of the FOB who so keenly look after 'their brolgas'.

*Graceful brolgas -
a great sight on the farm.*

Turn off the light and let weed seeds sleep

By Ian Faithfull,
Keith Turnbull Research Institute.



New overseas research has found that the germination of many weed species in a newly-sown crop can be reduced if the final cultivation is undertaken at night.

Ordinary daylight cultivation briefly exposes weed seeds to light before they are reburied. Exposure to light breaks the dormancy of the seeds, which then germinate. Exposure periods as short as a millisecond are sufficient to break dormancy and initiate germination of many species. At night the seeds are not exposed to light and no germination occurs.

Various trials have shown significant decreases in weed densities with night tillage. For example, weed cover in intensively cultivated land in North Bavaria (Germany) could be reduced from 80 per cent to two per cent if cultivation was carried out during darkness. Persian speedwell, field bindweed and several other weeds were markedly reduced by night cultivation while perennial ryegrass increased.

More recently, scientists at the University of Bonn have demonstrated that strips of land ploughed in darkness had five times fewer weeds than similar strips ploughed in daylight.

Night ploughing of wheat crops resulted in weed populations so low that herbicide treatment proved unnecessary. These German researchers have developed a shielding device which prevents exposure of seeds during daylight cultivation, but it is not as effective as night cultivation.

There is now general recognition that 'photo-control' warrants an increased research effort and could provide major benefits in weed management.

Cultivation

Cultivation is a proven effective method of weed control. Depth of cultivation, timing, speed of working, soil moisture and other environmental conditions influence its effectiveness. In Europe much cultivation is undertaken with mouldboard ploughs and other deep tillage implements. These invert the soil and tend to bury weed seeds. Disc ploughs, commonly used in Australia, do not lead to deep burial. Scarifiers and tyned implements break up the soil surface but do not invert.

Results of research on weed control using night cultivation in Europe may have only marginal applicability in Australia. Applied research on photo-control methods is required to evaluate its potential benefits in specific situations.

Complexities of photo-control

A Swedish researcher tested populations of 44 species, mostly Swedish agricultural weeds, and found that germination was consistently stimulated by brief (five second) exposure to light in 24 of the species, including summer annuals, winter annuals and perennials. In 20 species there was no effect or an inconsistent response.

Knowing the weed species is therefore not enough to predict whether its seeds will germinate in response to short duration light exposure. Many weeds can potentially be 'photo-controlled' by night cultivation but detailed ecological studies may be necessary to predict the effects and determine whether they are large enough to be worthwhile.

Research has demonstrated that cultivation during darkness often results in the emergence of fewer weed seedlings than daylight treatment. Research and practical experimentation are required to determine the circumstances under which night tillage might produce real benefits for Victorian farmers.

A more detailed discussion of the effect of light on weed seed germination can be found in *Under Control, Pest Plant and Animal Management News*. Contact Ian Faithfull on (03) 9785 0105.

Rainbow crop demonstration pays off

Farmers in the Rainbow TOPCROP Group in north-west Victoria have tackled the challenge of implementing new technology by doing their own research. Since the group began in 1994, members have designed, managed and run over 10 cropping demonstrations. The results have helped the group to make informed decisions and explore the potential of new ideas.

Kevin and Toni Clugston have run various trials looking at which wheat varieties are best suited to the Rainbow district. Kevin began the trials back in 1994 to find out why local farmers were still growing older varieties such as Halberd.

Kevin saw the trials as an opportunity to compare the performance of new varieties such as Ouyen, Frame and Silverstar with other district wheat crops. "You have to be prepared to spend half a day at cropping and harvest time to do the work but if you come up with something that suits your soils then it's well worth it."

The demonstration has been sown across a range of different soil types over the last four years. The results have shown yield differences between the varieties when grown in different soils. In 1995 the boron-tolerant varieties Frame and Barunga came out on top when sown on heavy soil while in 1996 Ouyen yielded best on a sandy loam.



On the basis of these results farmers in the district have been challenged to match different varieties to different paddocks. Kevin is interested in continuing with the demonstration to look at the latest varieties.

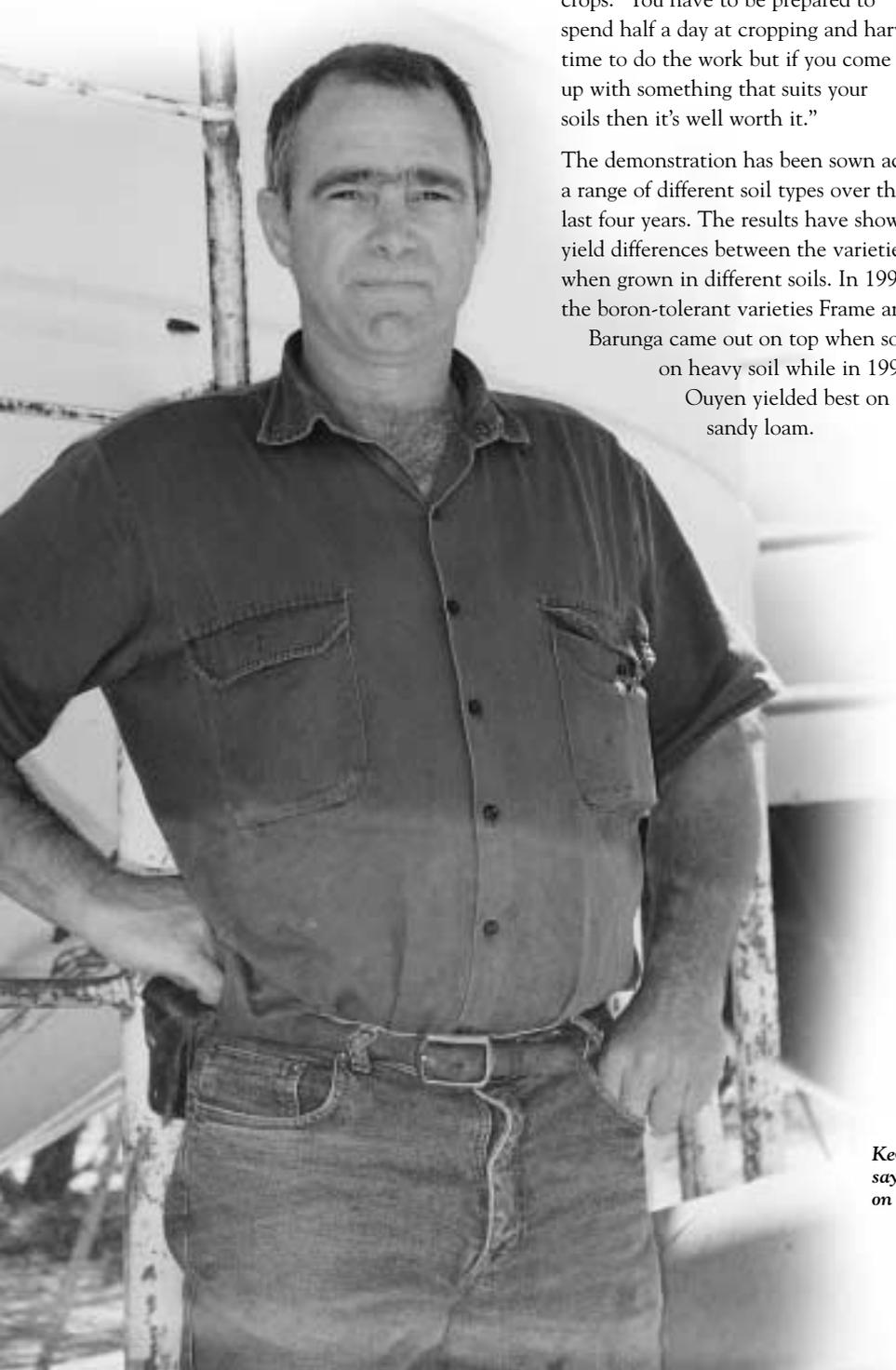
Tips for DIY trials

To make the most of your own trials consider what question you want the trial to answer, then decide what you need to compare to make this happen. For accurate results –

- Pick your test site carefully so it is as uniform as possible – avoid headlands, fences, trees, crabholes, etc.
- Try and limit as many other factors as possible which might cause false differences between the treatments you are testing – sowing depth, sowing rates, weed competition, sowing date. This is particularly important when the difference you expect between treatments is small.
- Peg all plots and make a clear map of the trial layout.
- Make plot sizes at least 1m wider than the header front and at least 80m long so they can be harvested easily.

TOPCROP groups operate in most of Victoria's grain growing areas. TOPCROP is funded by the Grains Research and Development Corporation. For more information about TOPCROP contact Matt Coffey on (03) 5362 2146.

Kevin Clugston from the Rainbow TOPCROP Group says doing your own trials can produce good local data on which to base important farming decisions.



Junior Landcare

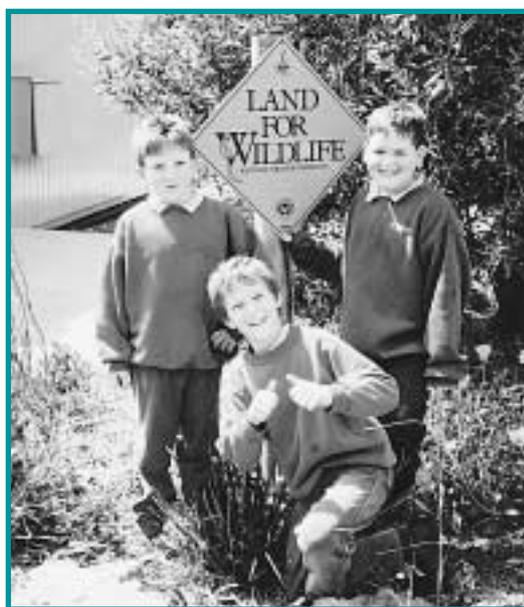
True GRIT at Gerangamete

Gerangamete Primary School have been heavily into landcare for the last six years. Their list of past achievements would be staggering for an adult landcare group let alone a small rural school.

Here's a taste of what they've done – salinity monitoring, nature trail construction, formation of a Junior Landcare Council, breeding and releasing cinnibar moths for ragwort control, selling trees to farmers from their nursery and hothouse, becoming a Land For Wildlife school, devising a composting system that has led to a 2/3 decrease in rubbish, winning the Rural School's Proud Schools section in the Keep Australia Beautiful Awards, making the finals in the Telstra Landcare Awards and creating a landcare community education room.

In 1998 the school decided to undertake a complete landcare project.

They chose a small local property and undertook the task of creating a wildlife corridor and shelterbelt. The project was called Project GRIT (Gerangamete Revegetates Indigenous Terrain).



The students started with an investigation of the farm. They measured the area to be planted and examined the soil. Some evidence of native wildlife was recorded through scats and many birds were seen.

Back at school the students used books and the Internet to find the best trees to plant. They decided to use rows of trees which they purchased from a local wholesale nursery. The planting took half a day with much work going into watering, digging holes, laying weed mat and putting old tyres down for rabbit guards.

Early this year students will collect seed from trees in the area so they can propagate and grow for themselves the trees needed for the next stage of the project.

Students from Gerangamete Primary School give landcare the 'thumbs up'.

Clifton Springs students paint the past

An innovative landcare and art project at Clifton Hills Primary School has reaped rewards. The school was awarded a Junior Landcare Grant for its creek restoration project and was placed second in the Ford One Planet Environment Awards.

Students at the school have been working hard to clear boxthorn and broom from the banks of their local creek and to create an all-weather walking track.

Local artist John Bloxidge then donated his time and expertise to work with the children in depicting the creek as it may have looked before white settlement.

The children researched which plants are native to the area and which have been introduced. They have also found out the different landuses that have taken place along the creek over the last 150 years. John Bloxidge used this information to plan the format of the mural. The artist worked with the students demonstrating the different painting techniques he uses.

A thing of beauty – the creek mural at Clifton Springs Primary School.

Victorian Landcare Page 11

Diversifying into farm forestry lifts bottom line

Diversification into farm forestry, a tree nursery, gum foliage for the cut flower market and wine grapes has allowed Vanessa and Tom Ranken of Egaline at Tumbarumba to keep farming.

Speaking in Geelong at a recent seminar convened by the National Landcare Facilitator Project, Vanessa Ranken said if she and her husband had not diversified their farm operation, they would still be dependent on an ever-dwindling wool cheque for their income.

“Whenever we have looked to diversify we have found opportunities knocking at our door,” Vanessa said. “Our farm is a part of a new approach to land management gradually finding ground in Australia, which we feel is both economically viable and ecologically sustainable.

“A mix of enterprises – both long and short term running concurrently – have spread our risk, made better use of plant and machinery and have enabled us to stay on the land. Forward contracts have allowed us to budget with some assurance and plan ahead.”

Vanessa Ranken said when they bought their property 20 years ago everyone farmed fat lambs so they joined the club. In a search to better utilise the land they diversified into clover seed production and then phalaris seed production.

“All these enterprises had the same basic flaws – there was no market assurance and there were huge price fluctuations. It was disappointing, after all our hard work and risking lots of money, to find that when we took our product to the marketplace we were vulnerable to the price of

the day.”

Keen to secure some markets the Rankens established a joint venture pine forest plantation with Australian Newsprint Mills (ANM) at Albury. With the security of a 30-year contract, the plantation was established on undeveloped land and gave the Rankens market security and access to silviculture expertise, while fitting in with their existing farm infrastructure.

“We’re expecting 120t of pulp wood per hectare at around \$10/t,” Vanessa said. “This represents \$1200/ha or \$93/ha/yr over the last 13 years which would have been unachievable on this land type with traditional grazing. This does not include the value of any remaining timber, which will be grown out for sawlog production.”

At the same time the Rankens switched from prime lambs to merino wethers because of the better gross margins and a lower labour input. They channelled their labour into a radiata pine nursery for forestry plantations and have secured several long-term contracts. The nursery produces around two million seedlings and cuttings a year with 90 per cent of the crop forward sold. It employs 15 staff.

The Rankens have also moved into grapes and cut foliage. They have 10ha of Pinot Noir, Sauvignon Blanc and Chardonnay under a 10-year contract with SouthCorp Winery. Around 20ha of eucalypts produces foliage for the cut flower industry. They have formed an agreement with a processor to supply flower markets in Sydney, Melbourne and Brisbane. The cut foliage business now employs eight staff.

Poor wool returns have been the catalyst for the Rankens leasing their remaining grazing country on two to three yearly agreements and focusing their attention on their more profitable and secure enterprises.

Copies of the diversification seminar proceedings are available from Lachlan Polkinghorne on (03) 5229 6050.

Tom and Vanessa Ranken in a stand of recently pruned six-year-old pines.





Radial sawing chops years from hardwood harvesting

The ceiling of the Eltham Library demonstrates the beauty, stability and versatility of radially-sawn timber.

The Radcon sawmill in Yarram is reducing hardwood harvest times from 60 to 15 years with its revolutionary sawing method. Radial sawing cuts a log from the outside to the centre, producing a wedge-shaped segment of timber.

Radial sawing utilises 40-80 per cent of saw log volume compared with 20-50 per cent using conventional sawmilling methods. This makes it economical to harvest timber at a much younger age.

Andy Knorr, Radcon Director, says that many small hardwoods, especially Australia's eucalypts, contain growth stresses. "These stresses are radial and lead to the characteristic end splitting of logs. Radial sawing releases these stresses evenly. A log radially sawn will 'spring' out from the centre, releasing stress equally into each segment."

Radially sawn wedges can be used for a wide variety of purposes from fencing through structural timbers to high quality joinery components. Wedges straight from the log can be used as posts, rails or weatherboards.

Simple cuts at the point and base of the wedges makes structural timbers such as beams, joists, bearers, rafters and batons. Resawing the wedges produces conventional timber profiles.

Andy Knorr says in the past it has been hard to combine the commercial aspects of agroforestry with the many other benefits. "We all know about the benefits of agroforestry for stock, micro-climates, landscapes, controlling and reversing land degradation, wildlife habitat, land values and for honey and seed production, but the returns on native species were considered low, long-term or non-existent.

"The adoption of radial milling has major implications for agroforestry. Now we can mill a broad range of tree types much earlier. Trees will be able to be grown to a particular size to produce a particular product.

"Trees destined for radial milling can be husbanded for a particular requirement and harvested when they reach the required diameter. Radial milling makes it easier to determine future products and log values."

Andy Knorr says planning and pruning are essential for a successful agroforestry plot. "An ideal plot would contain the leguminous species such as blackwood and silver wattle and a variety of eucalypts ranging from the quickest growing type, suitable for a particular area, through to slower growing types, which may be more durable. Mixing of species should reduce problems of insect attack while more durable species should show greater resistance to developing rot."

Andy recommends that trees are grown as close together as practically and economically possible and that selection and thinning should start early and continue until the desired result is achieved.

"Radial sawing opens up many opportunities for agroforestry and I have no doubt that it will become a mainstream sawmilling method providing markets for farm-grown timber."

Turning the tide on loss of

By Gib Wettenhall

Writer and ornithologist, Graham Pizze, says that in all his years of speaking to country groups he has never struck as large or as enthusiastic a group of farmers committed to reversing the loss of habitat within their region as those who filled the old wooden hall at Savernake last April.

Just north of the Murray, near Yarrawonga, Savernake is home to “some of the most significant patches of remnant vegetation remaining in the whole of the Murray catchment,” claims wildlife biologist and Greening Australia Project Officer, Ian Davidson.

From the south-western slopes of NSW to the northern plains of Victoria, there are few regions with more than five per cent tree cover. With over 10 per cent tree cover, Savernake is an exception to the rule. It is an important refuge of the superb parrot, the curlew and a number of rare and threatened shrubs such as a flowering pea, the red swainsona.

Last April, Corowa District Landcare and Greening Australia invited local landholders to a rural environment day to discuss how ‘long-term care of your land will enable us to remain viable and productive, as well as preserving our current bio-diversity of native species (flora and fauna)’.



A packed Savernake hall took the first step towards reversing tree loss in their region.

“Everything comes back to loss of habitat,” Richard Weatherley, farmer and world-renowned wildlife artist, told the packed country hall. Davidson agreed, telling the 185 people present that with tree losses averaging over two per cent a year across the basin, in 10-15 years many of the old box trees that dot the landscape will have disappeared. “You people are the custodians of the last remnants of the original vegetation,” he said to them. “At Savernake the opportunity is here to turn the tide.”

Two of the most enthusiastic tide-turners are Bill Sloane, the descendant of a pioneering family, and his wife Jaquetta. Bill and Jaquetta not only played a crucial role in bringing together their friends and neighbours for the April gathering, they were also instrumental in calling a follow-up meeting six months later.

Eight landholders have joined together to form a steering committee aiming, as Bill Sloane says, “to link the landscape”. The as yet unnamed group has invited Greening Australia to join them in an ambitious project to first identify and protect remnant vegetation within the 900 square kilometre region, then link the remnant patches by large-scale direct seeding of roadside verges as well as the creation of vegetation corridors through private land.

Prize woodland

From their arrival in 1862, the Sloanes have prized their woodland as highly as their flocks of sheep. Today, the three Sloane families have in their heartland what Ian Davidson describes as “the best remaining stand of murray pine forest on either side of the Murray River”.

Ian Davidson believes the Sloanes’ 1100 acre woodland is vital to the local survival of many native species such as superb parrots. It provides a core habitat, a last kingdom where all the shrub layers are present, enabling insect, bird and animal diversity to flourish.

“Taking the path back to the restoration of habitat requires, as a number one priority, making an inventory of what is left and developing strategies to hold onto it,” says Ian Davidson. As a first step, Greening Australia has just completed an assessment of 320 travelling stock route reserves to the north of the Murray and has found an even greater diversity of rare and threatened species than originally thought possible.

Now the new Savernake landholder group offers the opportunity to undertake an inventory of remnant patches on private land. The group has gained funding through Greening Australia to employ a community-based co-ordinator whose first task is to get out there and talk with farmers about their remnants.

Remnant murray pine and box woodland lies at the heart of the Sloanes’ properties at Savernake.



woodlands



Ian Davidson.

Protecting and linking remnants

“Once identified, protecting remnants by fencing out grazing and undertaking weed control are essential management steps for ensuring their retention,” says Ian Davidson.

Ian Davidson’s official title is Fencing Incentives Projects Officer. He will ensure Savernake’s landholders gain access to \$1200 per kilometre grants for fencing remnants. And to provide manpower, the Savernake landholder group and Greening Australia are looking at setting up a community-based works program.

Linking the remnants is the long-term aim. Given the scale of the lineal links required, the Savernake landholder group intends to rely primarily on direct seeding.

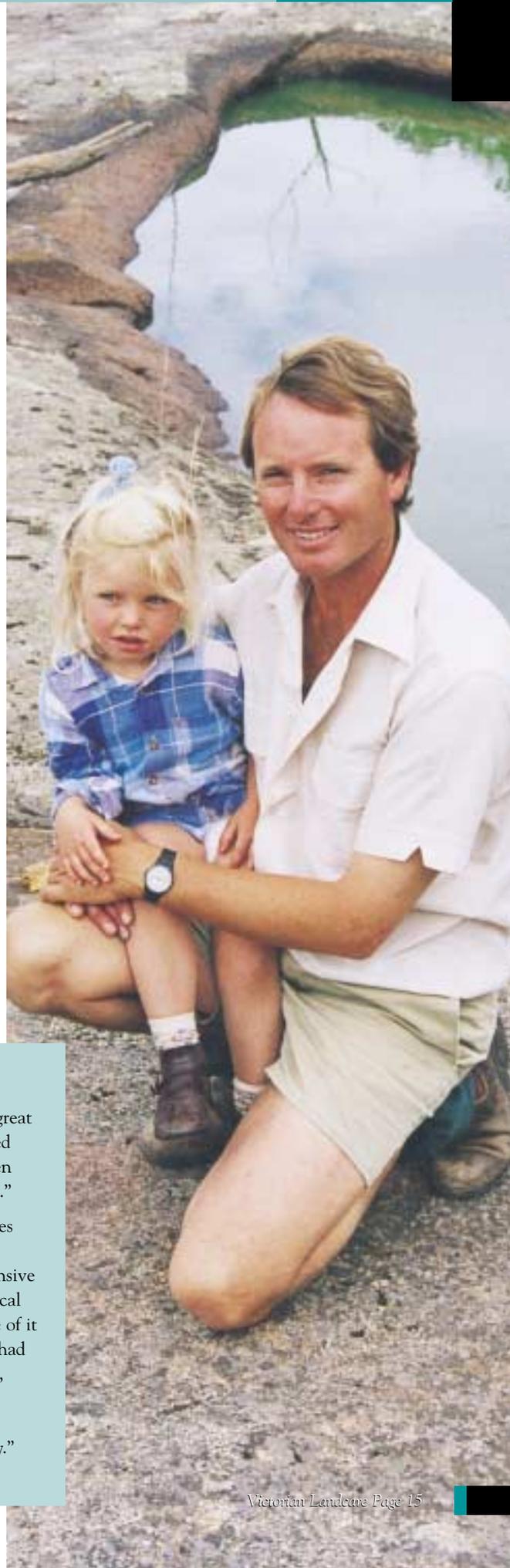
Three seed collecting demonstration days held last Spring trained over a dozen collectors in the Savernake region who will collect seed over summer. Starting this year, Greening Australia is offering grants of \$250 per hectare to landholders for the direct seeding of shrubs and trees on their own land.

A final speaker at the rural environment day, Martin Driver from Greening Australia, saw the high level of interest as offering an important starting point in developing a new land ethic.

“First, we have to believe that restoring habitat is possible – otherwise nothing will happen,” he concluded. “Then we have to go back and put into practice what we have heard today.”

Now, less than a year later, the landholders of Savernake are doing just that.

Bill Sloane and his daughter at the Boat Rock, a sacred Aboriginal site that the Sloanes have fenced off from grazing.



Sloane family recollections

In 1862 pioneer settlers Alexander and Annabella Sloane, with their four children and a nurse, embarked on a bone-breaking, nine-day journey by horse and cart from Melbourne to the virgin woodlands of Savernake.

The eldest child, James, recollected many years later: “When we got there the house was unfinished and the roof not completed. The country was box forest with some pine and bull oak interspersed with numerous shrubs, mostly acacias, with hop bush growing thickly in places. The sheep gradually exterminated them.

Some of the smaller acacias were of great beauty and the numerous broad-leafed golden wattles were magnificent when in flower. There were forests of them.”

But the forests did not last long. James also recalled “the hopelessness of the blacks” when the settlers began extensive ringbarking of trees in 1870. “Two local blacks wept bitterly when they spoke of it to sympathetic white friends... Both had the same thought given in the words, ‘Poor blackfellow, how can he live? No more possum’. Being like them fond of trees, they have my sympathy.”

Dave Mund



A wetland management project east of Edmonton, Alberta, Canada. The landholder floods a small creek to create a temporary wetland on his farm. The wetland is used by waterbirds and snowgeese as they migrate to the Arctic. When the birds leave the water is channelled back to the creek and the land produces good hay.

“The GRCA raises the majority of its own revenue and is in partnership with provincial and local government. They have cost sharing programs similar to ours, community development programs, agriculture programs and conservation programs. A community assessment group ensures all cost sharing projects meet their agreed guidelines. They are a well-rounded group continually looking for new ideas. They were extremely impressed with the concept of our Farm\$mart program and were genuinely interested in the program’s further development.”

Get them young!

“One area we need to do a lot more work on is in community education. Effective community education about catchment management, agriculture and conservation is a key way of achieving long-term change. The various programs I was exposed to encouraged my thoughts that curriculum integration with natural resource management is critically important so the change process starts early on.

“I believe we achieve good results with adults through the programs we are involved in, but we should not wait until the next generation is on the land to start the process. We should make a concerted effort in the young now, in partnership with the educators.

“Integrated catchment planning (watershed planning in Canada and the US) is identified as extremely important within the agencies and communities I visited. All of the organisations have an active integrated community education program, always in partnership with education boards and, in some instances, agricultural industries.”

Last year Dave Munday, the Department of Natural Resources and Environment’s Wimmera Regional Landcare Facilitator, travelled to Canada, Alaska and North and South Dakota as the winner of the Dr Sidney Plowman Study and Travel Award.

The award is presented every two years to enable a departmental staff member who has made an outstanding contribution to reversing land degradation on farms to travel and study overseas.

Dave Munday planned his tour with three aims in mind. He wanted to undertake some more training as a facilitator; he wanted to catch up with several US Department of Agriculture officers who visited the Wimmera in 1996 to learn about integrated catchment management; and he wanted to fulfil a lifelong dream of visiting Alaska.

Dave expected to be bringing home more knowledge and ideas than he took away and was surprised when this wasn’t the case. *Victorian Landcare* magazine spoke to Dave on his return and asked him what key messages he brought home.

Integration is essential

“I can’t stress enough how fortunate we are to have natural resource management in Victoria within the one integrated Department of Natural Resources and Environment. The overlaps and interdepartmental ‘co-opetition’ that I observed, particularly in the US, were bureaucratic and confusing. This confusion is not only apparent to outsiders, but also to the landholders involved that I was fortunate enough to meet.

“There is a growing demand from the community, ranchers and farmers, to cut the overlap and improve efficiency. This is becoming evident in the refocusing of the US Federal Bureau of Reclamation, US Farm Service Agency and US Natural Resources Conservation Service. I believe we should maintain, at all costs, a strong integrated approach to natural resource management here in Victoria.

“One of the most impressive organisations I visited was the Grand River Conservation Authority (GRCA) in Ontario. The GRCA is separate to provincial government. It appears to be a well focused and integrated organisation and gave me a positive impression of how a community-driven organisation can achieve integrated catchment management. The parallel I would draw, is to our evolving Catchment Management Authorities.

Port Graham on the Kenai Peninsula, Alaska. Dave visited this remote rural community, only accessible by light plane. The Port Graham community are the first of any First Nation Community throughout Canada and the United States to undertake watershed planning.



ay's excellent adventure

Tap into the motivators

"I learnt that our values can be a better motivator for action than the whole range of technical knowhow and cost sharing incentives. This was highlighted in Alaska, with native communities undertaking watershed planning based on values.

"I spent four days with the Port Graham native community, discussing the 'whys' of planning. Their values, both individual and community, were the key driving forces. This was one of the highlights of the entire trip. The two main Canadian communities I spent time with are involved in watershed planning and implementation. Both processes were instigated by community and individual values being threatened through various issues arising. Once values are recognised and discussed then technical solutions are sought and the financial incentives can influence the speed of change."

Farm\$mart wins accolades

"Our property management planning principles, more specifically the Farm\$mart program, were viewed upon as ground breaking and exciting. Most if not all the people I spoke to saw business planning for farmers as a great concept. Doubts about the skill level of staff to deliver such a program appeared to be their biggest concern.

"The Farm Service Agency in the US, in particular South Dakota, has started down this path and were extremely interested in our program.

The State Director for the United States Department of Agriculture in South Dakota, and landholders in both Canada and the US, gave strong indications that we are heading in the right direction with PMP and Farm\$mart. They all indicated that strong business skills in farmers will lead to balanced decisions in sustainable natural resource management."

Facilitation opens the mind

"I attended four accredited short courses dealing with facilitation skills and strategic planning in Canada and the US. The courses have confirmed my thoughts that facilitation (that is, learning through genuine participation) is one of the strongest tools to opening opportunities for change.

"Throughout my tour it was obvious that the challenges that rural communities are facing are very similar. Good facilitation can help people deal with change, find new solutions and accept technology more readily.

"People were very impressed that many of the natural resource management workers in Victoria have been trained in facilitation. It is seen as a positive step towards fostering change and moving agriculture forward."

Landcare envied

"I was very proud to be able to tell the story of Australia's landcare movement, audiences were always fascinated.

"There are some examples of smaller versions of landcare, for example Bootstraps in South Dakota and the Stewardship program in Ontario, but nothing on our scale. Australia's landcare movement was viewed with envy. We have much to be proud of."

Dave said it would be impossible to document all that he saw and learnt in the six weeks that he was away. "It was a profoundly positive experience, not only for what I saw and learnt but also for how it has changed my ideas and perceptions about the work that needs to be done here."

Dave recommends that whenever people have the opportunity to look over the fence they should do it. "You will never regret it. Success doesn't come from how much you know, but from how much you can learn."

Dave Munday (left) presents his report to Tony Plowman, MLA and the Hon. Jim Plowman, Speaker and MLA.



Visiting the frozen lakes of the Rocky Mountains in Kananaskis County. Wildlife workers are reintroducing the grey wolf to this isolated area.

Bright blue plantings

Melanie Waters, NRE Hamilton, writes on wisely integrating blue gums into the farming system.

The landscape in south-west Victoria is starting to take on a new, blue look, as blue gums (*Eucalyptus globulus globulus*) are being planted, for pulp, at an accelerating rate on farms in the district.

Last year approximately 8000ha of blue gum were planted around Hamilton – three times the amount that was planted in 1997. It is predicted that there will be another trebling of the planting area this year.

Most of the blue gums are being planted through private industry. Four major companies are operating in the Hamilton district. Each require at least 10ha of land that is within 150km of a port, 700mm/year rainfall and suitable soils (deep, free-draining soils are preferred).

One reason so many blue gums are being planted is because private industry is offering landholders an attractive annual rental payment for the use of their land. Ranging from ~ \$70-\$200/ha/year (for the length of 1-2 rotations, 10-26 years), these dollar values are often considerably higher than what is currently being generated through growing wool or beef.

Not all farmers are planting blue gums through private industry.

Some are doing it for themselves, with the hope that they will be able to break into a pulp market at harvest (in 10-13 years time).

Large blocks v. integration

Farmers considering planting blue gums for pulp have an important decision – to plant – or get a private company to plant – blue gums in large blocks or to integrate them into the farming system.

Ken and Dawn Dacomb are fine merino wool producers from the Cavendish region who recently faced this decision. The Dacomb's run a productive farm with 70 per cent wool-producing sheep, 18 per cent prime lambs and 12 per cent beef cattle. They are on sandy clay loam soils in a 650mm/year (on average) rainfall zone.

Approximately 25ha of their farm was planted to blue gums in 1998. They went with a private company that allowed their trees to be integrated into the farming system. Three sites were planted: two large shelter belts (20 rows wide that extended along boundary fences) and one along both banks of a saline creek.

The Dacomb's believe they made the right decision for their farm for three main reasons:

1. *To provide strategically placed shelter, for stock and pasture.*

The blue gum belts will provide well-placed, important shelter for their lambing ewes and newly-shorn sheep during times of frost, storm and heat extremes.

“Our initial motivation was to provide shelter for our stock and pasture... that was our motivation behind it, it was not a financial motivation at all,” says Ken.

2. *To alleviate salting and erosion problems.*

Ken and Dawn were always going to plant their creek to trees, in accordance with their whole farm plan, to help fix salting and erosion problems.

Getting a private company to manage the creek-side plantings will save them from having to spend time and money to plant and manage their creek-side trees.

By fencing off their creek and planting it to trees, stock will be unable to access the eroding banks during wet periods and the trees should help control salting problems.



3. To maximise land productivity.

By planting trees along their creek line the Dacomb's are turning a relatively unproductive section of land into a money-making venture.

Ken and Dawn chose to work with a company that allows stock to graze and seek shelter under the trees one year after planting. Tall wheat grass and balansa clover have been sown between their blue gums, from which stock will graze and hay cut.

Benefits from year one

Ken and Dawn's integrated growing approach serves as a clear example of how wisely-placed trees can offer shelter, environmental and farm productivity benefits. While large block plantings are cheaper and easier to fence and may be located on optimal sites on the farm, integrated plantings can work in with the rest of the farming system, to help make the whole farm more productive and sustainable.



Ken Dacomb believes there are benefits from integrating plantations into the farming system.

This message is particularly important for those tree growers who are unable to, or choose not to, obtain annual lease payments for growing blue gum. By integrating trees into the farming system, farmers can gain monetary value from their trees from year one, rather than having to wait until the final harvest (or for thinnings) before any gains are made.

Specialty timbers too

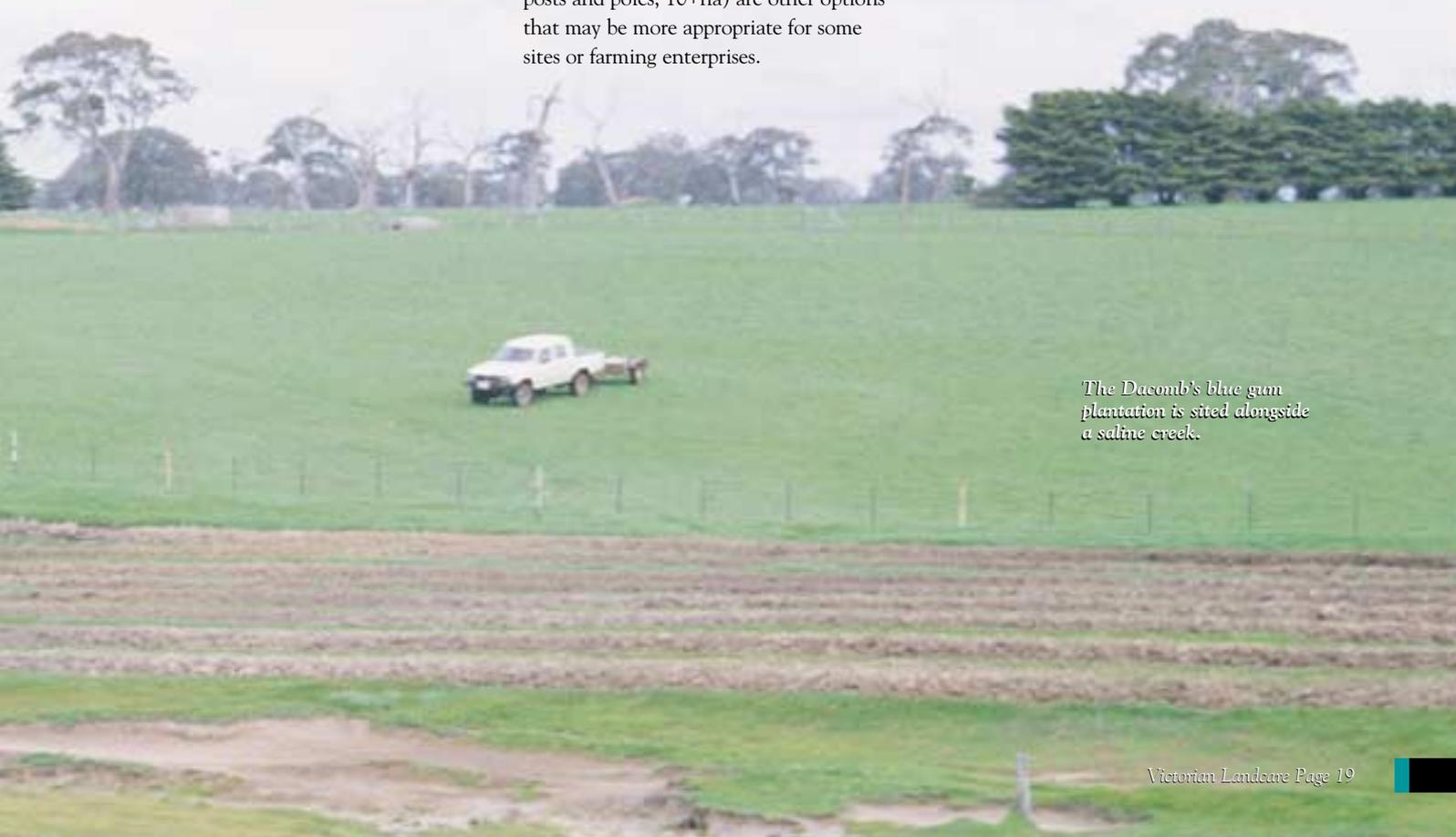
Blue gum is certainly not the only tree species that can be grown on farms to generate income.

Growing specialty timbers (1-2ha per year, pruning the trees to produce clearwood) and pine (for sawlog and/or posts and poles, 10+ha) are other options that may be more appropriate for some sites or farming enterprises.

Ken and Dawn Dacomb have several small (1-2ha) tree plantings that will be pruned to produce high quality sawlogs. These include blackwood (*Acacia melanoxylon*), river red gum (*Eucalyptus camaldulensis*), sydney blue gum (*E. saligna*), river sheoak (*Allocasuarina cunninghamiana*) and monterey cypress (*Cupressus macrocarpa*).

Growing sawlogs (rather than pulp) also provides landholders with the opportunity to value-add; to dry and saw their timbers (and raise their value) before they leave the farm.

For more information contact Melanie Waters at NRE Hamilton on (03) 5573 0900.



The Dacomb's blue gum plantation is sited alongside a saline creek.

WOOD-LOTS FOR FI

By Bruce Sonogan and Lindsay Trapnell, NRE Benalla, Victoria.

Making decisions in managing a farm business starts with considering what effects the technical and practical aspects of the change may have on other parts of an existing whole farm plan.

Once the technical and practical aspects have been fully considered, the next step is to analyse the effects on farm profitability and cashflow which may occur from introducing the new activity.

These issues are discussed in this article.

A case study

The scenario for this case study is one where a landholder annually produces 500 tonnes of firewood and builds the management of a wood-lot into the farm's overall management strategy.

To achieve this five hectares of wood-lot are established each year for 10 years (a total of 50 hectares). As each wood-lot reaches 10 years of age, it is felled, allowed to dry for one year and the trees then processed into cut and split firewood. The stumps are allowed to coppice for a second

rotation.

At the sale of the 10th harvest (one complete rotation) in year 21, the standing coppice is assigned a salvage value based on the exercise's annual growth rates.

To establish this 50 hectare wood-lot, the landholder must commit two weeks of labour per annum during years 1-10 and eight weeks of labour during years 11-21 to harvest and process the firewood and manage the coppice growth. Additional labour is hired only to assist in the cutting and splitting of firewood during years 12-21.

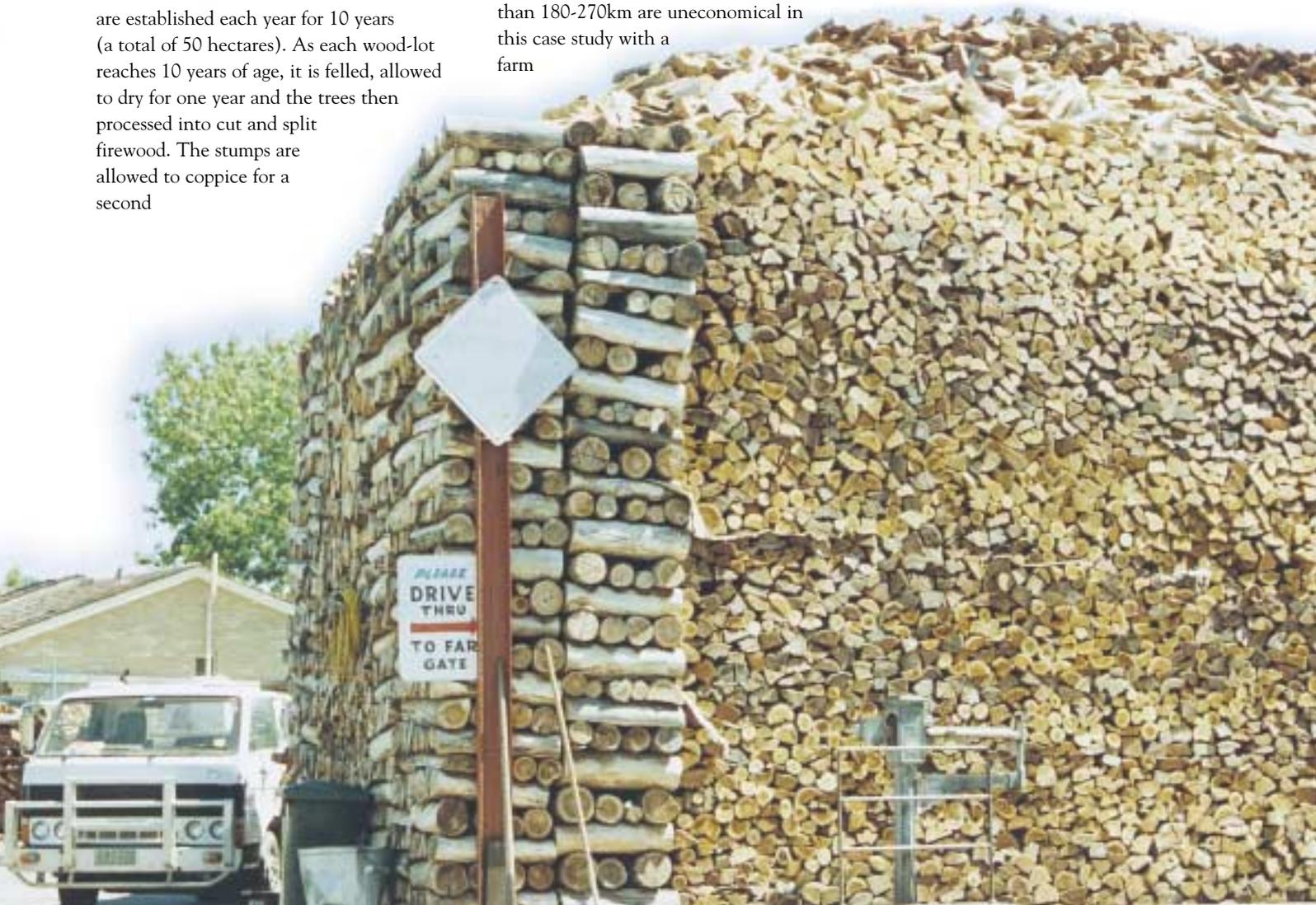
The profitability of any wood-lot is affected by the distance the firewood is hauled to the point of sale. With transport costs around 11 cents/tonne/km and wood yards paying around \$70 to \$80/tonne delivered, haulage distances of greater than 180-270km are uneconomical in this case study with a farm

gate price for firewood of \$50/tonne.

Profits from wood-lots

Break-even budgets were used to analyse the change in profitability which may occur from introducing a change to an existing whole farm plan.

These budgets show the change in profit which may occur from producing firewood instead of carrying out an existing farm activity such as growing crops or grazing livestock. In other words, the result of the budgets is to show the increase in net earnings from firewood above what would be earned from carrying out existing production. The gains are expressed as a percentage return to the



REWOOD - a case study

additional capital invested in establishing and harvesting the firewood.

The assumptions which have been added to the ones mentioned above are that taxation was included at an average marginal rate of 20 cents per dollar earned and inflation on income and costs was estimated at a long-term rate of four per cent per annum. It was also assumed that funds to develop the wood-lot and purchase equipment to manage and harvest the timber would be borrowed as part of a normal overdraft facility where the interest rate charged would be 12 per cent per annum.

The analysis revealed that the two most critical factors affecting additional returns to capital invested were the level of earnings from the existing farm activity and the amount of firewood produced.

To use this table first take a point, say

income from the existing farm activity of \$60 per hectare and an expected yield for firewood of 100 tonne per hectare.

At that point, the percentage return to additional capital invested by replacing the existing activity with a wood-lot is 18.3 per cent per annum. This figure can be directly related to interest charged by lending institutions on borrowed funds.

If the intention was to borrow all the capital for conducting the firewood operation, then the profit margin over the paying rate would be 6.3 per cent per annum. However, if farmers believe that growing firewood is riskier than carrying on the existing activity then they should allow a premium to cover the increased risk.

Farmers should realise that wood-lots for firewood, despite having reasonable levels of profitability, do not have positive cash surpluses until well into the production cycle. For instance, for the above example, the project

produces the first positive cashflow in the last year of the cycle after 20 years.

Conclusions

The main conclusion from this article is that wood-lots are favoured from a profitability point of view where net income from alternative land uses is low and the climatic conditions are favourable for producing large yields of saleable wood per hectare.

However, because of the long period of production before sales occur, break-even periods for cashflow may be around 17 years.

Some assumptions made for this exercise are that –

- The farm gate price for firewood is \$50/tonne.
- The growth rates for the wood-lot are 10 tonnes/hectare/year of air-dried firewood.
- Contract ripping costs are \$100/hectare.
- Mounding is done using own plant and machinery costing \$8.40 per hectare.
- Pre-plant herbicide costs \$40/hectare and second year weed control is \$21/hectare.
- Seedlings are planted at 1250/hectare and cost \$0.25/seedling.
- Fertiliser is applied at planting and again one year later costing \$63 and \$178/hectare.
- Hired labour costs \$15/hour.
- Machinery running costs are: chainsaw \$2/hour; firewood processing unit \$17/hour; loader \$15/hour.
- Capital cost of machinery: moulder \$2600; chainsaw \$800; firewood processor \$9500.
- Income for an alternative enterprise calculated as \$12 per dry sheep equivalent.
- Capital value per dry sheep equivalent is \$10.

Table 1: Percentage increase in profitability from firewood above the net earnings from the best alternative agricultural activity based on two 10 year rotations for production.

		Net income per hectare from best alternative agricultural activity										
		\$0	\$20	\$40	\$60	\$80	\$100	\$120	\$140	\$160	\$180	\$200
Firewood harvested in tonnes per hectare	50	11.0%	17.4%	9.7%	7.2%	4.7%	2.3%	0.0%				
	60	16.9%	11.0%	12.6%	10.2%	7.9%	5.7%	3.4%	1.0%	0.0%		
	70	18.3%	17.2%	14.5%	12.7%	10.8%	8.5%	6.4%	4.5%	2.6%	0.2%	
	80	20.7%	18.1%	16.0%	14.0%	12.6%	10.8%	8.9%	7.1%	5.0%	3.5%	1.9%
	90	22.2%	20.6%	18.7%	16.7%	14.4%	12.9%	11.1%	9.3%	7.6%	6.0%	4.4%
	100	23.5%	22.0%	20.3%	18.3%	16.6%	14.7%	13.0%	11.2%	9.7%	8.1%	6.6%
	110	24.8%	23.0%	21.7%	19.4%	18.1%	16.3%	14.6%	13.1%	11.5%	10.0%	8.5%
	120	26.1%	24.0%	23.0%	21.1%	19.4%	17.7%	16.1%	14.6%	13.1%	11.7%	10.2%
	130	27.2%	25.0%	24.1%	22.4%	20.7%	19.1%	17.0%	16.0%	14.6%	13.3%	11.8%
	140	28.2%	27.1%	25.0%	23.5%	21.0%	20.2%	18.7%	17.3%	15.4%	14.5%	12.2%
	150	29.1%	28.1%	26.3%	24.0%	23.0%	21.4%	19.4%	18.0%	17.1%	15.3%	14.6%
	180	33.0%	29.0%	27.3%	25.5%	24.0%	22.4%	21.0%	19.6%	18.2%	18.2%	16.7%
	170	30.0%	29.8%	28.1%	26.5%	24.9%	23.0%	22.0%	20.0%	19.3%	18.0%	18.8%

Direct seeding success at Nagambie

By Gabrielle O'Shea, NRE Benalla.



Nagambie Landcare Group members look at the stunning success of the direct seeding trial.

A direct seeding demonstration at Nagambie has captured the interest of local landholders by showing that the technique can be a successful and useful tool for people short of time and lacking the labour to hand-plant trees.

Phillip Deane of Warring, north of Nagambie, purchased a 60ha block near his farm in 1996. "It didn't have one tree on it and I thought it would be good to try direct seeding a clump of trees and shrubs after seeing how well it worked for Bill and Gwen Twigg at Bears Lagoon," explained Phillip.

Warring has an annual rainfall of 550mm in a typical year, but 1997 was anything but that. The trees were sown in September '97 on a cold rainy day and received only two more showers of rain before summer set in.

Despite the weather there has been an excellent survival, with Phillip contemplating thinning in the future.

The good result has been attributed to early sowing, ripping and good weed control, enabling the young seedlings to make the most of all the available moisture.

The seeds were also coated with Permethrin, to give protection from ants for up to two weeks, and the site was sprayed for red legged earth mites after germination.

A comparison of the costs of direct seeding this site and revegetation with low-cost tube stock is detailed below, assuming the landholder has or can borrow the equipment (except the direct seeding machines which can be borrowed from Greening Australia) and that no significant perennial weeds are present.

Recorded direct seeding costs for one hectare at Nagambie

Ripping	\$48.00
Weed control	\$62.25
Sowing and seed	\$253.00
Red legged earth mite control	\$33.00
Total cost per hectare for approx. 300 trees and shrubs	\$396.25

Tube stock costs for a one hectare site using low-cost seedlings and planting techniques

Ripping	\$48.00
Mounding or rotary hoeing (necessary when using pottiputki planting style planting tube)	\$48.00
Weed control	\$62.25
Plantings and seedlings (using planting tube and tray seedlings)	\$580.00
Rabbit or hare control	\$50.00
Total cost per hectare for 1000 trees and shrubs	\$788.25

The use of guards would add between \$100 and \$400 to costs depending on the type of guard, plus labour.

The savings in time and costs are the main attraction to the members of the Nagambie Landcare Group who watched the sowing and subsequent success of the site. For more information contact Gabrielle O'Shea on (03) 5761 2645.

Tree plantations to be trebled

Deputy Premier and Minister for Agriculture and Resources, Pat McNamara, has launched a blueprint strategy for trebling the tree plantation area in Victoria by the year 2020.

The strategy was developed by the Private Forestry Council Victoria.

It aims to increase Victoria's plantation estate from 250,000ha to 750,000ha through an innovative industry-government partnership. The State Government has allocated a \$2.7 million funding package over the next two years to implement the strategy.

Major initiatives will include sponsoring regional infrastructure studies, developing better regional market and technical information, establishing private forestry industry development officers and providing incentives for whole farm planning and plantation management training for landholders.



Victoria's Private Forestry Council at the launch of the new plantation strategy. From left, Peter Sutherland, John Houlihan, Peter Anderson, Doug Stevenson, Angus Pollock, Deputy Premier McNamara, Sir Rupert Hamer, Dominique LaFontaine, Malcolm Tonkin and Don Jowett. (Russell Washusen, Lloyd James, Kevin Hadingham and David Godding were absent.)

Victorian Government Community Catchment Management Grants 1999/2000

incorporating Rabbit Buster, Tree Victoria, Community Weed Control Scheme and Landcare Partnership Initiative



"The Victorian Government is committed to assisting private landowners, land managers and community groups with vital community initiatives to protect and sustain our catchments for future generations.

There are four programs which provide funding for community groups to carry out catchment management work in the areas of rabbit control, vegetation management, weed control and sound land management.

I invite you to apply for funding under these programs."

The Hon. Marie Tehan, MP

Minister for Conservation and Land Management

- **Rabbit Buster** (Stage 2) aims to build on the excellent gains achieved under the original Rabbit Buster Initiative by continuing to help community groups to work together using integrated control methods to reduce rabbit numbers across the State.
- **Tree Victoria** is a State vegetation management initiative aimed at encouraging community tree planting activity and remnant vegetation protection.
- **Community Weed Control Scheme** provides support to the Victorian community to significantly reduce and where possible eradicate weeds in target areas specified in regional catchment strategies by 2001.
- **Landcare Partnership Initiative** aims to strengthen the partnership between community, industry and Government by supporting Landcare groups and community-based catchment committees to introduce sound land management practices.

If you think you have a worthy project or initiative and seek funding assistance, please contact your local Catchment Management Authority for an application form and details of the Programs. Application forms are also available on the Internet at <http://www.nre.vic.gov.au/grants/> **Applications close 19 March 1999.**

Get your application forms from the following CMA offices:

North Central CMA ph: 5448 7124
North East CMA ph: (02) 6055 6133
West Gippsland CMA ph: 5175 7800
Corangamite CMA ph: 5232 9100

Wimmera CMA ph: 5382 1544
East Gippsland ph: 5153 0444
Mallee CMA ph: 5022 3040
Goulburn-Broken CMA ph: 5822 2288

Port Phillip Catchment and Land Protection Board ph: 9785 0183
Genelg-Hopkins CMA ph: 5571 2526

The funding for these four State programs is part of the Victorian Government's commitment to Landcare.



Natural Resources and Environment

AGRICULTURE • RESOURCES • CONSERVATION • LAND MANAGEMENT



LEEDS AGVP16108

Local help for catchment health

By Sally Gibson.

Late last year, regional Victorians will have seen home-grown celebrity Denise Drysdale, fishing line in tow, featuring in advertisements about the health needs of our creeks, rivers and streams.

The campaign sought to draw attention to the fact that in order to maintain and enhance the quality of our water, it is necessary to sustain and enhance our water catchments.

The campaign coincided with the receipt by many landowners throughout regional Victoria of a notice for payment of a Catchment/Waterway tariff. The regional tariff is generally between \$30 and \$40 payable by most property owners. But what is it for, what is its background and who pays it?

As far back as the 1950s, in some eastern parts of the State, property owners who lived near major waterways paid a tariff to the local River Management Authority for works directly related to their waterway. Since then, most of eastern Victoria has been paying this type of tariff through the RMAs.

In 1997, with the introduction of Catchment Management Authorities, RMA responsibilities were transferred to the CMAs. The CMAs were established in the recognition that, in order to protect the quality of our rivers, we need to look beyond the river itself.

Accordingly, CMAs, run by community-based boards, the members of which are appointed on a skills basis, have taken on a wider whole-of-catchment role.

CMAs have been busy with community education about the new Catchment/Waterway tariff. Here, a student from Huntly Primary School demonstrates Lake Boga's blue green algae problem at an activity run by the North Central Catchment Management Authority.

The issues they are concerned with include not only the waterway but also the wide range of issues that impact on it.

Salinity, soil, wind and water erosion, species loss and biodiversity, stream vegetation and its management, pest plants and animals and nutrient build-ups in waterways which cause algal blooms. These are the stuff of modern catchment management.

The regional tariff is designed to help undertake works to protect and enhance our rivers and ultimately the water we drink, use in our homes, on our crops, give our stock, swim in and generally rely on for our quality of life.

Works to protect our waterways and water resources will help to contain the increasing costs of treating poor water, flooding, salinity and environmental degradation.

The Government has set itself an ambitious target of expanding Victoria's food exports to a figure of \$12 billion by the year 2010. Catchment management works will help to improve the State's capacity to meet this target, a goal which will revitalise many country towns and provincial cities.

Each year, the tariff will generate about \$17 million statewide. This community contribution is being supplemented by a State and Federal Government contribution of around \$140 million this year for land and water resource management.

Melburnians also pay a tariff related to catchment works: residents pay a \$44 minimum drainage fee plus \$42 minimum parks fee. Landowners throughout the State share the responsibility for water health.

The recently-released tariff notices are in line with Government policy that provides for a two-part tariff – a uniform regional charge for the majority of properties plus an additional property value-based charge for higher value properties.

The tariff raised will be used to fund on-ground works in the catchment in which it is collected. It will be spent on priorities identified by the committees appointed under the CMAs to implement their Regional Catchment Strategies.

The new monies raised for natural resource management will leverage further funding from the Federal and State Governments. The results of the investment can only help to ensure the future prosperity and sustainability of regional Victorian life.



Piped water means huge flow-on benefit

By Maurie Lawson for Wimmera Mallee Water.



Doubled pig production

For Mallee pig farmer John Dalrymple, the dream of doubled production from his intensive piggery became achievable when water piped from the Murray River reached the cereal-growing country south-west of Swan Hill.

The piped water meant the end of a stifling clamp on pig production. John says: "Six or seven years ago when we could and should have been developing the piggery we were stumped for water. Now, the way to expansion is wide open."

John is quick to applaud the half-finished Northern Mallee Pipeline Project, the \$52 million commitment of Horsham-based Wimmera Mallee Water.

The thirsty Dalrymple piggery needs up to 13 megalitres of water a year to underpin a schedule that prepares 2000 slaughter pigs a year from breeding to bacon stage. "That 2000-pig output needs to double, which means we're now looking at using 20 to 30 megalitres a year," John says.

John recalls his grim stoicism in the pre-piping days when production took every available drop from a wasteful channel system. "We let the gardens and fruit trees die. We didn't have a square inch of lawn left on the place. All our available channel water went into the piggery."

Gratitude for Eureka

Bob Hatcher from 'Tyrell Downs' north of Sea Lake, draws water from the Eureka pipeline.

He makes no bones about his gratitude for piped supply, summing up the piping program as "the best thing that ever happened here".

Bob, a Mallee farmer all his adult life, feels so strongly about the piped supply he rates it ahead of State Electricity Commission power as a farm priority in the dry, isolated reaches of Victoria's north-west.

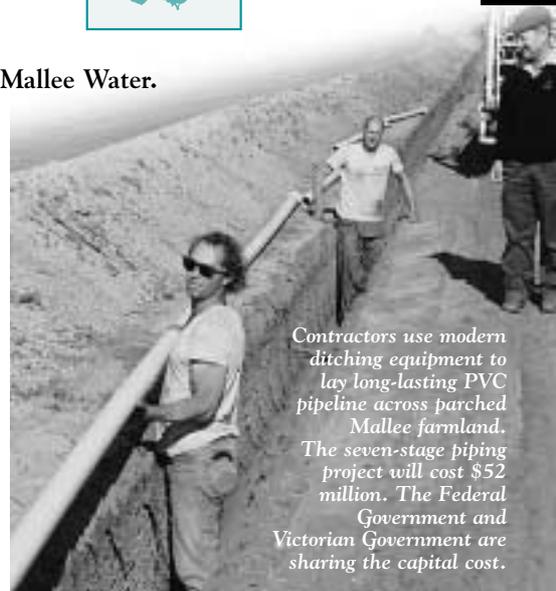
Bob grins ruefully at the memory of wasteful farm dams, always a poor proposition because the high salt table made them salty and the clay-free soil made them leak like sieves. "Without clay bottoms in the dams, the water soaked through to China."

Critic turns supporter

North-east of Tempy, Phyllis Vallance admits to having been a vociferous critic of piping in its formative years. She fought hard at the outset because farmers faced the prospect of paying the steep off-farm piping cost.

Phyllis says: "When I saw that Federal and State Governments were picking up the off-farm funding for piping, I had to go along with it. That's the way the Mallee needs to go."

An excavator clears drift sand from a blocked Mallee channel. Piping from the Murray River will eliminate the annual bugbear for Wimmera Mallee Water, ease the strain on Grampians storages and save more than 50,000 megalitres of water lost each year to seepage and evaporation from hundreds of kilometres of open channel.



Contractors use modern ditching equipment to lay long-lasting PVC pipeline across parched Mallee farmland. The seven-stage piping project will cost \$52 million. The Federal Government and Victorian Government are sharing the capital cost.

"We recognise the need to save water but generally, we've been well served by the channel system. People will miss the swimming and fishing in farm dams. And of course, troughs and tanks supplied by pipeline will need constant supervision."

Ouyen-based piping project engineer, Owen Hayden, says site preparation for the \$7 million fourth stage of the \$52 million piping job is now underway. The Federal Government and Victorian Government will share the cost, as with earlier stages.

The 41km fourth stage pipeline will link Ouyen in the central Mallee and the Murray River at Liparoo near Wemen. Owen Hayden forecasts a start on pipelaying at Liparoo early in January 1999.

He expects piped water to be running south-west to Ouyen around April.



Indigeno



Looking after country. On a field visit to forest on the Murray, from right, Doug Nichols, Wadi Wadi, Peta McKay from Greening Australia and Dr Jacque Kelly from the friends of Nyah Vinifera Forest.

The advent of the Natural Heritage Trust as a funding source has been a boon to land managers across Australia. Yet, in its first few years of operation, the NHT seems to have passed by Indigenous Australians.

In the 97/98 period, 2460 NHT Bushcare projects were approved. Of those, 90 were Indigenous. In Victoria, there were 416 Bushcare projects approved and yet only one was Indigenous.

Indigenous people manage approximately 15 per cent of Australia but in the 97/98 funding period, they received a mere 2.6 per cent of project funding.

New facilitators

To help rectify the disproportionate access and involvement Indigenous people have with the NHT and other land management programs, Environment Australia has set up a national network of 12 Indigenous Land Management Facilitators.

Their task is to promote sustainable natural resource management and nature conservation activities by Indigenous communities.

The Indigenous Land Management Facilitator Project aims to achieve an equitable and effective Indigenous involvement in, and access to, Natural Heritage Trust programs.

The facilitators will work with Indigenous land managers to make well informed and well considered natural resource management decisions which lead to ecologically sustainable development of land under their management.

The facilitators will provide feedback to Commonwealth Government policymakers to provide a better understanding of the natural resource management and environmental protection issues concerning Indigenous land managers.

The project will encourage indigenous participation in the management of lands other than Indigenous-owned land where such involvement has the support of the landholder. This may include activities on Government reserves and national parks.

Land custodians

In Victoria, there is a very small amount of freehold land held and managed by Aboriginal people.

As custodians for land in Victoria, Aboriginal people have responsibility to care for their country. This responsibility derives from an association with the land and waters that extends over time immemorial. All crown land in Victoria is either covered by an Application for Determination of native title or has native title rights and interests asserted over it.

us Land Management

By Natalie Moxham, Victoria's Indigenous Land Management Facilitator.

This means that in order to achieve Environment Australia's goals, Indigenous peoples and the wider community will need to make agreements for the management of land. Part of a facilitator's role is to assist the Indigenous and broader community to come together and do this.

There have been a number of Commonwealth initiatives to encourage communities to reconcile issues of native title. These include the Native Title Act 1993, cultural heritage legislation and the Commonwealth's commitment to reconciliation. In this regard, a major new feature of the NHT application form is the question 21b requirement for a supporting declaration from native title interests.*

Finding solutions

Mirimbiak Nations Aboriginal Corporation, the Victorian Native Title representative body, believes that the principles behind the Native Title Act and the NHT guidelines should be embraced - to encourage reconciliation, partnerships and for local communities to work together to find local solutions to local issues.

Land management provides a practical and timely application of these principles in helping to create equality in access to land by assisting Indigenous Australians to exercise their cultural responsibilities of caring for country.

If you wish to approach the native titleholders in your region, please feel free to approach Mirimbiak in the first instance to arrange a meeting. Contact Natalie Moxham on (03) 9486 9166.

*NHT application form, question 21b, states that, where required, a supporting declaration must be provided by landholders and management agencies and the relevant native title representative body. To supply this declaration, Mirimbiak, as the native title representative body, would consult with the relevant native titleholders and act as their representative. Most NHT applications are on freehold land where a supporting declaration may not be required from native titleholders and Mirimbiak. (However, there are Cultural Heritage requirements on freehold land. Refer p31-32 NHT guidelines.) Hence, there may be few NHT applications where a supporting declaration from native titleholders via Mirimbiak will be required.

Goulbourn Broken Landcare Community invites you to a two day Landcare Forum

"Landcare The Way Ahead"

Michelton Winery, Nagambie 27 & 28 th April 1999

INCORPORATING

**VFF Farm Tree & Landcare Association
1999 Annual General Meeting**

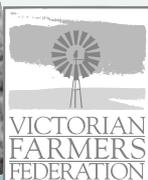
3.30pm Tuesday 27th April
Michelton Winery, Nagambie

Business items include:

Executive Reports

Information on Insurance for groups
and office bearers employment practices

Election of office bearers



For more information contact

Brenan Wotherspoon Phone: (03) 9207 5527 Fax: (03) 9207 5500

FOR ALL YOUR FARM FORESTRY AND PASTURE NEEDS, CONTACT:

LUCAS MILLTM

Australian Patent No. 668020 Foreign App. No. Pending

No. 1

**For Performance,
Safety and Price**

**SEE ALL LUCAS SAW MILLS & PRODUCTS AT
YOUR NEAREST FIELD DAYS.**

- ¥ One man set-up and operation
- ¥ Lightweight and accurate
- ¥ Handles logs up to 1.5m diameter and 6.1m long
- ¥ Can be set up on rough terrain
- ¥ 2 Year Warranty

6 model \$9,300 (18hp)
8.5 model \$12,300 (25hp)] *Sales Tax Exempt*

LOW IMPACT, SELECTIVE CUT LOGGING

Lucas Mills Pty. Ltd.

RMB 1090, Beechworth, Vic 3747

Ph: 03 57 287 283 Fax: 03 57 287 296

For more information and FREE video please send coupon.

Name:

Address:

Phone: EMail:

Landcare

SEAWINDS NURSERY

Contract growers of Native and Exotic plants for coast and hinterland.

- For Landcare groups broadacre landscape revegetation
- Nursery trade
- Municipal authorities
- Government agencies

Tubestock \$0.60^c
6 inch pots \$2.50

Seawinds Nursery

Wellington Road

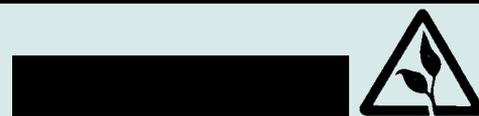
P.O. Box 1124

PORTLAND 3305

Ph: 03/55234896

Fax: 03/55215507

Auspiced by KYEEMA Inc Portland



Revegetation Solutions Erosion Control

- Treeguards
- Stakes - Bamboo & Hardwood
- Jutemats - Weed Control Mats
- Jutemaster® Erosion Control Matting
- Sieves for Seed Cleaning
- Regen 2000 Smokewater
- Forestry Tubes
- Australian made & Australian owned

TREEMAX



Ph: (03) 9429 6000

Fax: (03) 9429 6001

Internet Address: <http://www.treemax.com.au>

Email: info@treemax.com.au

Create Perfect Pastures

with...
CALDOW GRASSLINER
DIRECT DRILL MACHINE or...
CALDOW CONVERSION KITS

Contact Howard Caldwell or
Rob Addinsall

**WOOLBROOK
ENGINEERING P/L**

Balmoral Road

Cavendish

Victoria 3314

Ph: (03) 5574 2287

Fax: (03) 5574 2388

Hello! ^{AGRI-}TREE _{Nursery}

We would like to introduce ourselves to Victorian Landcare people as experienced growers of quality native trees and understory for agroforestry and all types of Landcare projects.

Our reputation is built on sound nursery practices which ensure robust seedlings. Healthy root systems are achieved by growing in root trainer containers (tubes and Hiko trays) *off ground* for vital air pruning.

Enquiries and requests for the **1999 Planting Guide and Order Forms** are most welcome.

*Bruce and Jenny
Keogh*

AGRI-TREE NURSERY

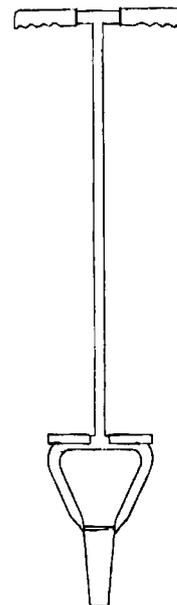
RMB 1622

Benalla 3673

Phone/Fax: (03) 5768 2397

THE HAMILTON TREEPLANTER

The Stainless Steel Handtool for planting trees grown in tubes



- ★ By simply pushing into the ground and extracting, a planting hole can be tailor made for the tubestock used, speeding up the planting process tenfold.
- ★ Reduces transplanting shock, ensuring good survival rates when using good quality tubestock, weed control and correct timing of planting.
- ★ Sizes available for all commonly used tubestock, pots & bare roots.

Arborline Pty. Ltd.

A.C.N. 059 154 497

181 Ballarat Road (P.O. Box 722), Hamilton, Vic. 3300
Telephone (03) 5572 4018, Facsimile (03) 5571 1115

ON THE SHELF - New Publications



Growing Successfully: Australian experiences with farm forestry

Another one of Greening Australia's farm forestry books, *Growing Successfully* contains 18 case studies of different farm forestry operations around Australia.

The case studies aim to inspire the imaginations of landholders keen to explore and realise the potential of farm forestry. The 18 examples are all innovative ideas that could be valuable to many landholders. They include small initiatives with native species and large-scale projects with exotic species. Timber production is covered in detail as well as producing other forest products like nuts, seeds and oil.

This is a thoughtful book. Each farm forester is asked why their projects have been successful and when the list of 18 different 'ingredients for success' is put together it provides a powerful insight for those considering entering the industry.

Growing Successfully: Australian experiences with farm forestry is a free publication available from Greening Australia on

(03) 9457 3024.

Skills Evaluation Kit

This very user-friendly *Skills Evaluation Kit* has been designed for use by the South Australian Soil Conservation Boards but it has a much broader audience.

The kit helps groups work out which skills they possess and which skills they may

need to gain. It would be a great addition to the library of any community group. The kit contains a handbook and a series of skill cards. It

provides good, simple information on how to analyse the results of a skills audit and how to develop an action plan.

In a time when we expect more and more from our community groups, taking the time to do a skills audit

and identifying training needs can be very worthwhile.

Copies of the kit are available from Primary Industries and Resources South Australia on (08) 8303 9345 for \$15 + \$2 postage and handling.

Managing Vertebrate Pests

For the serious rabbit eradication enthusiast this book provides a detailed review of the history of rabbits in Australia. It also covers rabbit biology, the damage they cause and past and present strategies for rabbit management.

Managing Vertebrate Pests written by five of Australia's foremost vertebrate pest scientists. The authors recommend different management techniques and strategies. They use four different case studies and identify the deficiencies in knowledge, management and legislation in each.

The book also looks at our attitudes towards rabbits with sections on animal welfare groups, commercial, recreational and Aboriginal people harvesting rabbits and other interest groups.

A more detailed discussion of the rabbit problem will not be found. *Managing Vertebrate Pests* is available from the Bureau of Resource Sciences on (02) 6272 4114 for \$24.95.



Junior Landcare Grants announced

Students from Invergordon Primary School and Katandra West Primary School spent a fun day at Kyabram Fauna Park last year when the first round of the Victorian Junior Landcare Grants were announced.

In announcing the successful grant recipients Conservation and Land Management Minister, Marie Tehan, said Victorian Junior Landcare was about recruiting young people to become the custodians of the environment for the next century.

In the first round of applications 181 different projects were funded. Most of the applications came from schools with a smaller number from scout and guide groups, Junior Landcare networks and other organisations.

Minister Tehan said it was very pleasing to note the enthusiasm that the younger members of our community have for landcare.

"We will look forward to seeing the fruits of their activity and the contribution they will make to the environment."



Conservation and Land Management Minister, Marie Tehan, with Paul Cairns and students from Invergordon Primary School (far left) and Gary Cleveland and students from Katandra West Primary School (far right).

Is Your Landcare Group Covered?

The VFF Farm Trees & Landcare Association Inc. provides Landcare groups with a quick one stop administration shop.

The VFF Farm Trees & Landcare Association:

- Covers your group for public and product liability and cover for members, volunteers and other workers.
- Offers professional indemnity insurance for your group co-ordinators & facilitators.
- Assists in developing legal employment contracts for group employees.
- Provides a copy of the Victorian Landcare Magazine to all group members.
- Offers hassle free Incorporation.
- Is an independent voice for Landcare people in Victoria.

Renewals are due from March 1st for existing member groups.

If your group is not a member, then find out more information from Brenan Wotherspoon at the VFF on

Ph: (03) 9207 5527

Fax: (03) 9207 5500



Goulburn Murray Landcare Network goes global!

The Goulburn Murray Landcare Network (GMLN)

is a voluntary, community-run forum, networking 53 landcare groups in the Shepparton region of Victoria. The Network's most recent initiative has been the development and launch of their own Internet web site.

The GMLN web is an extensive site, providing information on the GMLN itself, showcasing the landcare groups within the Network and recognising the efforts of people within the groups.



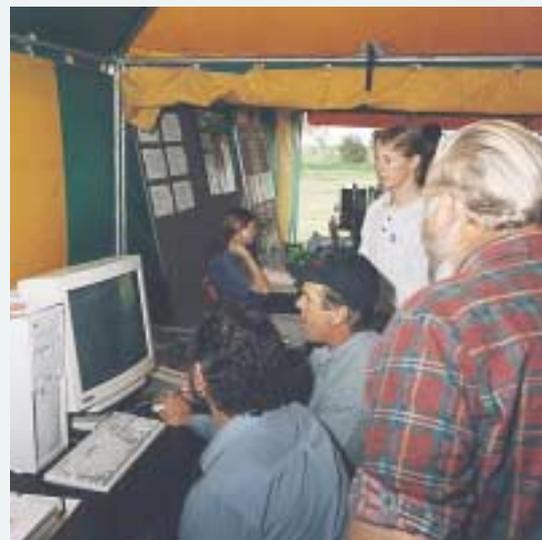
The web site includes a site map, information about the Network and how to join, details on all of the groups, local heroes, regional projects and resources, the GMLN newsletter and a calendar of upcoming events.

The site will be regularly maintained and will continue to grow. It is an excellent source of information for those interested in landcare. It provides real local examples of just how much is being done and is a testimony, which leaves no doubt, that volunteers and a united community spirit are the heart and soul of landcare and the reason for its incredible success.

We encourage the readers of *Victorian Landcare* magazine to come on-line and have a look at what the GMLN and landcare groups of the SIR are doing.

The GMLN web site can be accessed at: <http://www.gmln.org.au> For further information about the site contact Helen Oliver at NRE Tatura on (03) 5833 5355.

Members of the Goulburn Murray Landcare Network surfing the web at a field day.



Proven, total fluke control – FASINEX®

The need for total control

It only takes a few fluke to lower bodyweight and milk production in sheep and cattle and reduce the weight of offspring. Add to that lower conception rates, and these effects can result in losses as great as \$54.00 per head per annum for dairy cattle. Studies have also revealed the annual loss can reach \$43.80 a head for beef cattle and \$6.69 for sheep.

When most fluke damage is done
Immature fluke (less than six weeks old) cause the most damage as they carve their way through the liver to the bile ducts.

Unlike most treatments, FASINEX controls these immature fluke to prevent damage and loss of productivity.

The high risk of fluke

Up to 70% of animals in irrigated areas are infected by fluke and the risk may increase with low-lying or marshy land, ideal habitats for the "fluke" snails.

FASINEX gives fast, sure control of fluke at all three stages

Anything less and you risk an expensive problem – one that will continue to eat into the profitability of your livestock.

See your local Novartis representative, veterinarian or rural merchandiser for detailed information or
Free call 1800 633 768,
Mon-Fri, 8.30am - 5.30pm EST.



FASINEX

 **NOVARTIS**

© Registered trademark of Novartis Inc., Basle, Switzerland.

REN F4686 01/99



Maximum fluke control with one hit