

Victorian Landcare Magazine

Issue 5, Spring 1997

From the Editors

We have been amazed by the terrific response to our recent reader survey. Over 1,400 readers completed the survey, many writing detailed comments.

The results are very positive: most people enjoy reading the magazine, find it informative and well designed. The most popular stories are on new research findings, practical advice and farmer interviews.

Over 80% of readers wanted the magazine to stay at its current frequency of four issues each year. Some readers were concerned at the costs of producing the 'colour and quality' of the magazine. We have aimed to produce the best possible magazine within our budget. The mix of colour and black and white was decided on after obtaining numerous quotes and samples. Advertising also helps to offset the magazines production costs.

Many thanks to all of our readers who completed the survey. The information we have received is very valuable and we will use it to plan our future issues.

The editors,

Mal Brown, Paul Crock and Greg King.

PS. We have just received news that Wyuna Landcare Group has won the Community Group Section in the Victorian Landcare Awards. Congratulations Wyuna, more on the Landcare Awards in the next issue.

Caption: Greg King with Jack and Phyllis Valence from Tempy who were the winners of our reader survey competition. Jack and Phyllis are pictured at the recent Victorian Farmers Federation annual conference. Jack and Phyllis are life members of the VFF and have been involved in Landcare for many years. Farmers throughout the Mallee would be aware of their efforts in establishing the Nandalay Bunny Busters.

South Gippsland puts on a show

Tom and Sue Lougheridge, winners of the 1996 National Roundup Landcare Primary Producer Award and the Jeetho West Landcare Group hosted one of the biggest and most successful field days seen in Gippsland for many years.

Organised by the South Gippsland Landcare Network, with support from the VFF, UDV and QBE Insurance, nearly 250 landcare people from as far away as Sale and Tallygaroopna saw how productivity and conservation could be combined in an intensive dairy operation.

Bruce Standfield, the chair of the Landcare Network opened the morning session. Greig Barry, President of the Jeetho West Landcare Group introduced the speakers; Brian Scarsbrick from Landcare Australia, Tom and Sue Lougheridge, Rob Youl and Peter Notman, a well known pasture agronomist and Nuffield Scholar.

Sue Lougheridge discussed the early days when they purchased the farm, and how trees were initially planted to shelter their stock. "Once we realised the benefits of our tree planting in countering erosion, we continued in order to stem soil losses from landslips and tunnel erosion."

Since 1982, the Lougheridges have planted in excess of 26,000 trees mainly in erosion prone areas, but also to protect their stock. In 1992, they undertook a whole farm planning exercise, and with the help of their son Chris and new wife Peta are in the process of implementing it.

Tom spoke of the benefits of landcare to his farm business. "Extensive pasture renovation, with increased fertiliser usage, rotational grazing and fencing to land capability has not only made the farm safer, but has increased productivity by 82% over the last 15 years"

"In 1982 we were milking 160 cows, producing 170-180kg butterfat and 140kg protein per cow. Now we milk 230 cows, and have increased butterfat to 220-225kg and protein to 175kg per cow. 15% of the property has been retired from grazing and planted with trees to stabilise the soil."

Tom and Sue highlighted Chris and Peta's role in helping improve the property. "They are now becoming custodians of the land, and with Chris' new innovative ideas the future of the farm looks secure."

Peter Notman spoke of his Nuffield Scholarship tour of South America looking into their dairy industry. His message for the day was that their pasture management and animal husbandry are not far behind our own, and with labour so cheap and technology not far away, the South Americans will prove to be worthy competitors in our world markets.

Frank Bourke from QBE Insurance Leongatha Branch worked tirelessly over the BBQ to provide the field day goers with enough energy to tackle the Lougheridge's hills in the afternoon farm walk.

Tom Lougheridge and Angus Hume from the West Gippsland CMA and South Gippsland Landcare Network, led the walk, with Chris Lougheridge and Peter Notman fielding the questions relating to pasture management techniques, fertiliser rates and pasture improvement methods. Chris explained that while the trees assisted in controlling soil erosion, vigorous pasture growth over the whole farm played a more important role in minimising soil loss. "Sheet erosion is minimised if the pasture are managed properly in the rotational system" he said.

Special thanks for the day must be extended to the Gippsland Landcare coordinators, David Ziebell, Martin Fuller and Scott Brain, and the Loch ladies who, as usual provided a lavish morning tea.

For more information on the field day or the Lougheridges please contact Martin Fuller on (03) 5674 3516 or David Ziebell on (03) 5662 9212.

Captions: The ringleaders of the day prepare for the onslaught. Scott Brain, DNRE Leongatha, Angus Hume, West Gippsland CMA, Martin Fuller, Bass LC Coordinator, Rob Youl and Bruce Standfield, Chair, SGLN.

Tom Lougheridge and Angus Hume lead the charge of the landcare brigade through the highly productive pastures.

In brief

Royal Melbourne Show, 18-28th September

Don't miss the Department of Natural Resources and Environment's display at the Royal Show this year. The theme is 'everyone lives in a catchment.' The display features a huge map of Victoria showing our forests, farms, National Parks and industries. The DNRE stand is on the ground floor of the Government Pavilion. There will also be some activities for kids.

Weedbuster Week

Coming up in October, Weedbuster Week is a time set aside to raise awareness about weeds and the damage they do to our environment. Register now to promote your efforts in your local community. Your activity could be a field day, a weed control demonstration, weed clean-up at a local creek or park or any other weed control related activity. If you're interested in being part of Weedbuster Week contact Glenn Simmons for a registration form. DNRE (03) 9412 4792 or fax (03) 9412 4388.

NHT Update

Nearly 2,000 project applications for Natural Heritage Trust funding were received by the State Assessment Panel.

The State and Regional Assessment Panels have now completed their assessment and priority ranking of projects. Victoria's submission is currently with the Ministers for Agriculture and Resources and Conservation and Land Management who will forward it to Canberra for consideration.

The funding announcement should be known by early September. Successful applicants will be required to sign a financial support agreement before funds are made available. These agreements will be sent out by the Department of Natural Resources and Environment, NHT's co-ordinating agency for Victoria. Financial support agreements must be returned before funds are sent out.

Once funding announcements have been made, anybody with queries about an application should contact their local NLP contact officer at the Department of Natural Resources and Environment.

View from the hill

Mick Stevens is constantly reminded that 'no man is an island.' From a hill on top of his farm he can see what all his neighbours are doing, and how it is going to affect him.

"My place gives me a unique view on catchment management. It shows me there are good things happening but they're scattered. We really need to fill in the gaps, to get everyone involved," he says.

Mick admits that farmers are not all ready to make changes at the same time.

"In 1990 I hadn't planted a tree. In the garden maybe, but not on the farm," he says.

The only trees on Mick's farm were old cypress's planted by his father and now coming to the end of their lifespan.

Since joining the Hopkins Moyne Land Management and Farm Tree Group Mick has planted around 20,000 trees on his farm. He started with tube stock and then got into direct seeding. Most recently he has been working on agroforestry and milling the timber he is growing.

Mick says he tries to be a salesman for the group. His property is used as a demonstration farm and he is always ready to show his whole farm plan, beautifully framed in his own timber.

Caption: Mick Stevens from the Hopkins Moyne Land Management and Farm Tree Group with his whole farm plan.

Students and farmers put the Moyne River under the microscope

Caption: Win Leslie, a farmer from Hawkesdale believes salinity monitoring of the Moyne River would not have been possible without the involvement of the local school.

A curious group of people are meeting in Win Leslie's lounge room. Win and her husband David are farmers, but still not locals after 22 years in Hawkesdale. Brenda Elliott is the Science laboratory Technician at Hawkesdale College. Mick Stevens is the treasurer of the Hopkins Moyne Land Management and Farm Tree Group and a zealous tree planter on his own property.

Back in 1994 the Hopkins Moyne Land Management and Farm Tree Group decided to take action. Salinity was creeping across their farms and they were concerned about water quality in the Moyne River. But the group is small, they didn't have the resources or the know how to conduct the major monitoring program they needed.

They teamed up with the local school, Hawkesdale College for an ambitious monitoring program. Two years later they have detailed data collected from 20 sites along the Moyne River.

When the Hopkins Moyne Land Management and Farm Tree Group first formed their main concern was tree planting. Win said when she came into the area 20 years ago you couldn't see a tree. "Shelter was an enormous problem. I remember having to go out at night in the bad weather and wrap freshly shorn lambs in hay to keep them warm. Now we've planted countless trees and we are really seeing the benefit. Our stocking rate has improved and we've created a much better working environment." Win and David are working on a integrated plan for their property which includes pasture renovation and drainage.

Win Leslie says they first noticed salinity in the area in the early 1980's. She thinks it has probably always been around to some degree. One group member has a paddock called 'salt paddock' from soldier settlement days. The group knew they needed to get more information but readily admit that without the schools help the monitoring program wouldn't have been possible.

The monitoring program came at the right time for the school. They were challenged by the Victorian Certificate of Education (VCE) to develop discovery learning and build links with the community.

Brenda Elliott from the school believes there are benefits right across the curriculum. "The school had always been interested in landcare. We teach agriculture and horticulture and have been doing Saltwatch since 1989. Now our senior students are involved in Waterwatch too. They are testing local rivers for water quality indicators like salinity, nutrients, pH and turbidity. They are learning to recognise macroinvertebrates and understand what this means for the health of the river."

The school work was boosted with a Community Salinity Grant to purchase salinity meters and sink watertable watch bores in the grounds. Brenda says the colourful flags in the bores have helped to interest even the youngest primary students in local watertables.

A report on the data collected so far has been prepared by the local office of the Department of Natural Resources and Environment. It shows river salinity levels are strongly linked to rainfall. To determine trends of rising or falling salinity levels in the catchment will require long term monitoring. Fortunately the enthusiasm of the school and the group is high.

The group would like to develop a catchment management plan for the area and have applied for funding for a facilitator. Win Leslie is confident that the group is on the right track. "First we need data so we can understand what's happening, then the on-ground works will come. Ultimately we may not get rid of the salt. But at least we might understand it better and learn to live with it," she says.

WEEDS FUNDING

Minister for Conservation and Land Management Marie Tehan has announced grants funding totalling \$1,553,531 as the next step in the campaign to fight weeds throughout rural Victoria.

In announcing the funding, Mrs Tehan has specifically targeted Victoria's rural sector where weeds cost the State over \$360 million annually in lost production.

158 of the 276 applications received were granted under the Community Weed Control Scheme. 13 applications from Shire and City Councils received funding totalling \$264,426 to assist rural landowners to deal with weeds.

By recognising the problems of weeds in the rural sectors, the Government has given community groups the opportunity to attack 47 different weed species over a total area of 4,206,108 hectares and 85.5km of roadside and streamside work.

NATIONAL WEEDS STRATEGY

A National Weeds Strategy has been launched by Commonwealth Ministers Robert Hill and John Anderson.

The Federal Government has allocated \$24 million to deal with weeds of national significance.

The State Government has allocated \$12 million over the next four years solely to combat the Victorian weed problem.

The National Weeds Strategy ties in with the State initiative Waging War on Weeds which aims to raise awareness of the roles and responsibilities of all landowners in targeting problem weeds while providing practical and financial assistance for organisations and groups committed to reducing the impact of weeds.

Trial and error in whole farm planning

Captions: View from the bridge: Bruce with son Angus.

The heavy load bridge gives access to machinery on both sides of the creek.

An afternoon at Manooka: Bruce with his three sons and a family friend.

In the early 1990's Glenormiston Agricultural College was running courses to train government staff in the new technique of whole farm planning.

Bruce Donaldson, a farmer from Mortlake is telling this story. He smiles wryly. "They used my place as a practical exercise and the results were what you'd call interesting. They didn't understand the scale of the map. They broke the property down into soil types creating little paddocks of five to 15 acres along the back boundary. Not exactly practical for getting water to, or moving sheep."

Bruce says he didn't think about the whole farm plan back then. But when the rural recession hit he had time on his hands and no money, so he started to think and plan. With a group of neighbours he went on his own whole farm planning course, taking a lot of time to come up with a plan that was flexible before he started implementing it.

Bruce began to understand that soil types might be more important than he had realised - allowing for the strategic use of fertilisers, better grazing management and water usage. He has aimed for a flexible plan based around rotational grazing, with subdivisions he can pull

out if they don't work. He is implementing a system of laneways which is complicated by the farms long driveway and scattered sheds.

Central to Bruce's whole farm plan was the need to fence out his frontage onto Blind Creek. He received an LPIS Grant to fence 1.4km of frontage. It has given him more flexibility in grazing and keeps the cows and calves out of the creek in winter.

But fencing out the creek also created an access problem. For the property to develop further he needed to link paddocks on each side of the creek. The solution was a heavy-load bridge, but with a cost of \$7,000 the project seemed out of reach.

He took on extra agistment to pay for the 8m concrete kit bridge that is now the pride of the farm. Bruce's mother and business partner refer to the bridge as 'the Westgate'.

Bruce says that along with the bridge, electric fencing has brought huge changes to how he runs the property. "Electric fencing costs around half as much as traditional station fencing, and its not so permanent. If I make a mistake, or change my mind, I just move it. This area is highly fire prone so farmers have always spent a lot of money on insuring their fences in case they get burnt. With electric fences it doesn't matter so much."

For the past five years Bruce has been president of the Blind Creek Landcare Group. there are 14 families in the group, mainly neighbours. One of the groups' big concerns is salinity.

Bruce remembers a trip to Mildura. He called in on a field day hoping to learn something about salinity from the 'experts'. "They were talking about managing around 4,000 EC. When I told them I was dealing with 28,000 EC they said 'go home, we can't help you'. Much of our salinity is primary salting through the evaporation of wetlands."

The landcare groups has been supported by mining giant CRA to assist with a trial site on 200 hectares of saline swamp. The group has put down 27 shallow piezometers. CRA have sunk five deep piezometers to help increase understanding of local hydrology.

Bruce is very positive about the association with CRA. "They couldn't have been more helpful. We wanted an aerial electromagnetic survey to find out about the underlying geological formations, so CRA arranged to have a plane fly over our area. They have also sent a geologist out to the local school.

The involvement of schools is very important to the group. Local students are involved in monitoring salinity and water quality through Saltwatch and Waterwatch. With three boys in primary school Bruce is experienced at talking farming with kids.

In contrast to the group's experience with CRA, Bruce is critical of government funding schemes. He says the timeframes are just too short. "You get a year to plan the project, do it, and evaluate it. We are dealing with pretty complex problems, it can be three to five years before you get results and sometimes even longer before you turn up any meaningful answers. It ends up being a vicious cycle. If you get a bad season the project slows down or maybe even changes course. You're less likely to get funding in future years, although you probably need it even more."

Bruce admits his knowledge of land management has sky rocketed since the early days of whole farm planning. He has attended numerous field days and completed a Pro Graze course which has extended his understanding of pasture growth and animal nutrition.

He believes that landcare has been a major stimulation for change. "Over time landcare itself is moving from being reactive to proactive - using scientific assessment to uncover problems before they get too serious," he says.

And he has started to reduce his paddock sizes. Not down to the five to 15 acres recommended by the whole farm plan experts, but to around 30 to 50 acres. Getting water to these paddocks is still one of his biggest problems.

New Taxation Incentives for Landcare

Landholders will now have the choice of claiming accelerated tax deductions for Landcare works or a tax rebate or credit. The new Landcare tax incentives were announced by the Minister for Primary Industries and Energy John Anderson in July.

The tax rebate or credit will be set at a rate of 34 cents in the dollar for qualifying expenditure incurred from July 1 1997. Specific details on eligibility are yet to be announced, however the rebate/credit will be based on the present definition of Landcare works under sections 75B and 75D of the Income Tax Assessment Act.

Mr Anderson said the tax incentives are aimed to help farmers on low incomes to establish and maintain on-farm Landcare works.

FUTURE POSITIVE

Major Report helps boost Landcare

by Sally Gibson

Captions: Some faces from the Moolort Landcare Group. (L to R) Jeff Mikkelsen, Alison Teese, Janet Barker, Graeme Canfield and Rob Sewell. Janet and Rob are involved in co-ordinating the group's work at a local and DNRE level. This sort of assistance will increase in response to the 'Caring for Landcare in Victoria' report.

A Landcare support person attached to each Catchment Management Authority.

Continued support for individuals seeking Landcare funding.

Your local government working alongside your local Landcare group.

These are some of the key recommendations recently accepted by Government in a major report designed to consolidate the future of Landcare in Victoria.

The report, 'Caring for Landcare in Victoria', has been prepared by the Victorian Catchment and Land Protection Council, the peak body advising government on the management of catchments in Victoria.

The report is based on issues raised at Landcare forums and in consultation with Landcare groups and has been accepted by Deputy Premier and Minister for Agriculture and Resources, Mr Patrick McNamara and Minister for Conservation and Land Management, Mrs Marie Tehan.

In accepting the report, Mrs Tehan said the Government's strategic support of Landcare will become increasingly essential to its future as we move towards the end of the Decade of Landcare.

Council Chairman, Mr Jeremy Gaylard, added that Landcare's future viability is a critical link in the implementation of the Catchment Management Authorities' (CMAs) Regional Catchment Strategies.

Other key recommendations in the report included that:

- CMAs specify how they will support Landcare groups in their region and also, that the groups have input on CMAs' plans, budgets, priority setting, and reporting;
- projects be evaluated regionally;
- CMAs ensure that there is adequate and effective integration of projects and programs relating to Landcare groups and networks;
- CMAs work closely with local government and other regional bodies to ensure that the activities of bodies are consistent with Regional Catchment Strategies and do not compromise the work of regional Landcare;
- CMAs liaise and negotiate with the Department of Natural Resources and Environment to ensure that the skills of staff assigned to work with Landcare groups are matched appropriately to the needs of Landcare groups;
- that a regional forum be held to help co-ordinate Landcare projects;
- that the bureaucracy for Landcare groups be minimised by measures such as the early clarification of reporting responsibilities to reduce unnecessary workloads when projects are completed.

Mrs Tehan has asked that the Council report back to her by June 1998 on the implementation of the recommendations.

Copies of the report are available from the Catchment and Land Protection Council, 4/115 Victoria Parade, Fitzroy, Victoria, 3065 or by phoning (03) 9412 6508.

A Shared Vision for River Conservation

Captions: The lower Genoa River from 1,000 feet looking upstream to Genoa Township: eroded, stripped of vegetation and straightened in the severe floods of the 1970s.

*Closely planted cells of *Poa ensiformis* (Tussock Grass) after four months of growth. The planting is designed to give rapid bank protection after the removal of seed producing willow trees.*

The conservation and restoration of the natural river heritage of far East Gippsland is being assured, thanks to an innovative partnership between the river frontage farmers, private enterprise and a statutory authority.

The far East Gippsland area is unique in Victoria, featuring the extensive reaches of the Bemm and Genoa rivers all of which flow into the Croajingalong National Park, a UNESCO World Biosphere Reserve. 95% of the catchment remains uncleared, but the cleared river reaches have suffered extensive degradation since settlement, including major erosion of farmland and threatening of downstream fauna and flora.

The degraded reaches require appropriate, ongoing restorative management to prevent further degradation of a region with exceptional natural values of state and national significance.

The ongoing river frontage restoration involves a partnership between landholders and the East Gippsland River Management Board (EGRMB). Until recently the EGRMB was funded solely by a local levy and government funding. In 1996 in the first sponsorship of its kind, Nicolaas van Roosendaal of Plantwize Nursery and Australian Aquaflores offered their propagation facilities to germinate and grow the indigenous riparian species of East Gippsland.

The sponsorship has provided the EGRMB with state of the art plant propagation and production services (to a value of \$10,000), from seed collected locally by the EGRMB.

The sponsorship complements the river restoration program of the EGRMB, who since 1990 have been employing stabilisation techniques and stock control to stop further erosion.

With the advances in propagation technology introduced and the abilities to grow previously difficult species in large numbers, the EGRMB, in conjunction with Riparian Australia, can now re-establish desirable indigenous species at a faster rate than would be possible if relying solely on natural regeneration.

The Cann River, which has suffered extensive degradation and been the focus of a sustained 30 years bank stabilisation program stands to benefit considerably from the new approaches in vegetation establishment made possible by the co-operative venture. It will be possible to establish large numbers of plants (of species such as Water Gum) which will survive in an environment very hostile to plant establishment and growth - with high flow rates and mobile sediments.

This project demonstrates the value of co-operation and the advantage of pooling skills and resources to achieve positive results for both the rivers and the community.

For more information contact Wendy Robinson, Secretary Far East Rivers Management Group on (03) 5158 0203.

Wild dogs take the bait

High country Landcare Feature

by Paul Crock

Caption: Bill Flannagan and George Sykes (formerly DNRE) lay baits in the forest. The aim of the wild dog program is to minimise livestock losses to primary producers and in the process help the native fauna.

Wild dogs continue to cause concern for graziers in the East Gippsland high country, where for decades they have been killing sheep and lambs, causing serious income loss throughout the region.

While the government provides 'doggers' to seek out and destroy wild dogs by snaring, baiting and shooting, the vastness of the public land in the high country of East Gippsland makes it impossible to control all the dogs.

Fencing by landholders has been effective in reducing incursions of wild dogs, however not only is it a very expensive exercise for the farmers, the length of the public/private boundary makes the job extremely difficult.

In 1992, the Department of Natural Resources and Environment and landholders in the Gelantipy Wild Dog Group joined forces to tackle the problem with an integrated wild dog program. Since then groups at Bairnsdale, Swifts Creek, Buchan, Omeo, Deddick/Tubbut, Bendoc and Marlo have also become involved.

The integrated program consists of ongoing snaring, shooting and baiting by DNRE 'doggers', joint DNRE/landholder poisoning programs on public and private land, boundary fencing incentives through the Land Protection Incentive Scheme (with the emphasis on electric fencing), and improved livestock management by landholders.

The joint baiting program is widely supported in the community and brings together staff from all DNRE units and landholders.

Bill Flannagan, a landholder in the Upper Livingstone Valley (near Omeo) has been fighting wild dogs for years. "In 1994, the Department and the Dog Group joined forces and started a fox and wild dog baiting program which has had great results."

"Fresh meat baits are laid along tracks known to be frequented by wild dogs. Each bait is buried in a prepared site about 80cm across and mounded to about 15cm. The location is clearly marked and any activity at the site monitored by DNRE staff." "Last year we laid 1000 baits on over 400km of roadsides and bush tracks of which 704 were taken. Lambing rates have since increased by nearly 20 percent".

Geoff Harman, DNRE's Bairnsdale Land Protection Advisory Officer, believes that the integrated approach has greatly assisted in reducing dog numbers.

"Nobody knows how many wild dogs there are out there, but from monitoring the number of baits taken and the number of dogs snared by the DNRE doggers, we believe we are making a significant impact. The information gathered also helps us determine which bait stations are less active. These will be deleted from the baiting program hopefully leading to a 25% reduction in the number of stations required.

Geoff highlighted that the highest priority for requests for assistance from landholders is given to those farmers who are making an effort themselves through actions such as constructing and maintaining dog proof boundary fences, cooperating with their neighbours in carrying out preventative measures such as poisoning and implementing common-sense livestock management.

"The inspection/advisory service is still provided to all landholders to advise them of the options available including incentives for dog fencing and options for reducing attacks on livestock, but ad hoc actions to attend attacks on properties where there is no evidence of commitment by the landholder will not take priority over the strategic control program."

Geoff and Bill look forward to continuing the wild dog program through the Good Neighbour Program in the future. For more information, please contact Geoff at the DNRE office in Bairnsdale on (03) 5152 0600.

High country landcarers tackle gully erosion

Captions: The gully on Neil Strobridge's property before earthworks began in April.

The edges of the gully were battered back and well compacted by the contractor.

Group members looking over the finished project in July. Poor seasonal rainfall hampered pasture establishment, the snow on the ground shows how vulnerable projects in the region are to the elements.

Members of the enthusiastic Omeo Landcare Group are spearheading the fight against land degradation in the Omeo region. Battling poor seasonal conditions, low commodity prices and the occasional snow fall this resilient bunch remain positive about their future.

The president of the group, Simon Lawlor points to gully erosion as the highest priority for the group. "There are numerous washouts in the area, ranging from gullies like this one to some up to many hundreds of meters long."

"These gullies pose all sorts of problems including hampering stock access to paddocks, making weed and vermin control near impossible and contributing to the huge problem of turbidity in our rivers and streams."

The group identified a need for increased public awareness of the problem, and a demonstration to highlight to landholders what could be done. Funding was sought and obtained from the National Landcare Program to repair a medium sized gully.

“The group’s rationale for the demonstration on Neil Strobridge’s property was that the project was achievable in both cost and time, and could demonstrate how smaller gullies could be tackled before they became too big and too expensive to fix even with assistance from the department. It also aimed to show landholders that such sites could then be incorporated back into the farm and not fenced and planted with trees’ Simon said.

The project, completed in April this year involved extensive earthworks. Topsoil was removed and stockpiled, the banks of the gully battered off, and a contour bank constructed to keep the water off the repaired gully. The topsoil in the region is prone to dispersion, so to avoid surface sealing, gypsum was added before the area was sown down with oats and a deep rooted perennial pasture mix and well topped with fertiliser.

Neil praised the efforts of the conscientious operator. “He ensured both the gully and contour banks were well compacted, factors which will be critical to the success of the earthworks.”

“The oats were planted to get cover up quickly, while the deep rooted perennial pasture mix was used to get roots down deep and to provide protection against summer thunderstorms by tying the soil together. The white chooks and black chooks (cockatoos and crows) didn’t help get the pasture off to a great start” he said.

Keren Layton, the Omeo-Swifts Creek Landcare Officer was diligent in taking before photographs for the group. “These photos help highlight the success of the project, and demonstrate to others what it was like as it is difficult now to picture the gully as it was - a picture tells a thousand words” she said.

The project’s success has encouraged the group to continue their efforts. They have applied for National Heritage Trust funding to continue mapping and surveying gullies in the region and promote best practice management techniques to combat the problem.

For more information about the project please contact Keren at Swifts Creek on (03) 5159 4344.

Mortlake farmer creates an insect haven

by Carri Tiffany

Captions: The Eucalyptus Sawfly. The ‘spitfire grubs’ of the Sawfly are a common pest, defoliating eucalypts throughout southern Australia.

This predatory bug inserts its feeding tube into the larvae of the Leaf Beetle. The caterpillars of the moth can defoliate woodlands leaving them looking brown as though scorched by fire.

Xanthochryptus Wasps feed on the nectar glands of Acacia retinoides.

Richard Weatherly with a crop of Leaf Beetle larvae.

If insects could read Richard Weatherly would put a ‘welcome’ sign on his gate. Aside from a successful career as a wildlife artist, a business in direct seeding and a 4,000 acre Merino stud, Richard is an insect ‘pied piper’. He actively encourages insects to take up residence on his farm.

Richard has created an extensive system of linked shelterbelts or ‘ecological nodes’ on his farm ‘Connewarran’, at Mortlake. He uses direct seeding to create the basis for the ecosystem, a variety of native plants. The plants are not all indigenous. Richard uses the

technique of analogue forestry: choosing species to mimic the ecology of an indigenous ecosystem while promoting sustainability.

Once the plants are established Richard monitors insect life in the nodes, enthusiastically recording new species. Yet his trees, crops and pastures don't suffer from significant insect pest attack.

Richard says the secret is an understanding of symbiosis. "Symbiosis is the close and mutually beneficial association of organisms of different species. We know insects predate trees, but something also predate insects. We need to understand the relationships between all organisms in the ecosystem."

Insects are the most successful terrestrial animals living today. They have radiated successfully into all possible environments around the globe, except oceans. Insects are predated upon by a variety of birds, fish, reptiles, mammals and plants. But by far the biggest predator of insects are other insects.

On a tour of Richard's farm we stop to look at ecological nodes of different ages and search for insect treasures. Even on a windy day with spitting rain Richard turns up some good specimens.

Eucalyptus Sawfly are a common pest in southern Australia, they can completely strip the leaves of individual trees. "The key to controlling Sawfly is having a nectar resource to attract the predatory wasps and tachinid (Bristle) flies that predate the Sawfly larvae," Richard says.

"Flowers are the most obvious nectar source, but they are not around all year. Insects also feed on nectar excreted from tiny glands in acacias."

According to Richard tree density and diversity can also help to reduce Sawfly attacks. "Sawfly are generally pests of open woodlots and ornamental trees, a greater variety of trees and shrubs reduces their impact. The only birds that feed on the spitfire grubs are Crimson Rosellas and Gang Gang Cockatoos, both birds restricted to forest or dense woodland habitats."

We move on to a six year old node where the trees are now eight to ten metres tall. They provide effective shelter from the strong wind for wildlife and stock. Richard is pleased to see a few plants have already died and toppled over. This will build up ant activity on the ground which will bring in more echidnas.

Swamp Wallabies and koalas also frequent the nodes. Richard credits direct seeding with the vigour of the trees and diversity of insect and animal life. "With proper planning," he says, "you can sow the basis of an ecosystem in a day. It only needs time to develop."

Richard discovers a brilliant metallic blue Thynnid wasp. He explains its place in the ecosystem. "Some Thynnid wasps control Curl Grubs. The female wasps are flightless and look like ants. They burrow down into the soil to lay their eggs in curl grubs. The process is dependant on nectar. The wasp needs fertilising after laying only one or two eggs so the male collects nectar to feed her during copulation. The male must feed on nectar every day but is only a short range flier, so a dense crop of nectar bearing trees or shrubs nearby is essential.

"Controlling the Curl Grub has a double benefit. The grubs damage pastures then hatch into Scarab Beetles which defoliate trees. Scarab Beetles have their own parasites. Tachinid flies lay their eggs on the head and thorax of the beetles, on hatching they burrow into the beetles, quickly killing them."

We move to another node where Richard is pleased to see good numbers of small flies and wasps. He explains their importance in controlling the Gum Leaf Skeletoniser which can

seriously damage sapling eucalypts. Small flies and wasps parasitise the larvae of the skeletoniser. Their own larvae develop inside the moth larvae and eventually kill it.

Richard says his work on insect biodiversity is all about balance. "My aim is to create a balanced ecosystem. Insects are an important part of that ecosystem. I may have to accept some insect predation on trees and crops but I should be able to avoid any serious 'plague' outbreaks through simple competition. If problem insects are being predated by other insects their populations will stay under control."

Richard's knowledge of insects is impressive. He measures success by increasing diversity which means more and more insects he can't identify. He admits it has been difficult to get information. There is no single text to help farmers identify insects and understand their role in the environment. Richard is grateful to the Museum of Victoria for information and access to their collection.

There is a mixture of farmers' practicality and artists' attention to detail in Richard's study of insects. He marvels at their beauty: the stunning colours of a moth, the delicate little golden slippers of a beetle, its larvae like tiny gold nuggets. But he also views them as just another part of the farm. He is even pleased to see the return of Hopper Ants. They haven't been seen for many years but he remembers his sister suffering from a bite as a child.

Sustainable Agriculture - End or means?

by Bob Edgar

Captions: "Industry Commission staff would be more profitably employed if they were given a hoe and told to go out and help farmers control weeds." Wally Shaw, President of the Victorian Farmers Federation on the Commonwealth inquiry into sustainable land management. 'Country News', February 1997.

Farm leaders have become increasingly critical of the endless series of meetings, reports and discussion about sustainable agriculture that has followed the publication of "Our Common Future" in 1987.

'Sustainability' simply means that resources will be used in a way that will meet today's needs without compromising the ability of future generations to meet their needs. It's surprising this idea is controversial when the transfer of a good farm to the next generation is a well established Australian tradition.

Is sustainable agriculture an unrealistic goal or have the policy makers neglected some vital human aspects?

The Environment

"The pastoral industry in the remote regions of Australia has no future next century.... The meagre profits that are available are extracted at the expense of the environment." Kenneth Davidson, 'The Age', July 1997.

There is no doubt that the development of the agricultural and pastoral industries has come at significant cost to the environment. Native species have become extinct, soils eroded and waterways degraded. Grazing by sheep and cattle has damaged vegetation across large areas of the inland. Many Australian soils are poorly suited to traditional cropping methods.

But in spite of severe economic pressures farmers have readily responded to the environmental challenge. For example, during a recent five year period more than 60% of cropping farmers in Northern Victoria adopted conservation techniques and surveys show over 40% of farmers are actively working in Landcare groups. Unfortunately marketing

arrangements for products provide no way of recouping the additional costs of environmental protection.

Economics

“The challenge in the next century is to sustain our natural resources, yet at the same time intensify agricultural practices to give increased production.” John Landy, ‘Australian Farm Journal’, February 1997.

Recent ABARE figures indicate large variations in the profitability of Australian farms. Return on capital varied from 31.7% for large wheat farms to - 3.2% for small sheep/beef farms. The statistics show that large farms are tending to dominate. Already 72% of the gross value of production of broadacre farms comes from the largest one third of farms.

At the other end of the scale small ‘lifestyle’ farms maintain viability through off farm income and by supplying niche markets.

Soundly based farms located on suitable land will continue to produce into the future. They will use techniques that have no adverse effect on the land, other farms, waterways or natural systems. Consumers in Australia and overseas will demand an effective quality assurance process which certifies their produce as clean and green.

The Local Community

“No more,” he insists. “The line has been drawn. We’re not going to lie down and let them kill our town”

John McConville, Donald resident in ‘The Weekend Australian’, June 1997.

A farm can not exist in isolation from the local community. Family members need to buy goods and services, meet with friends, go to school, obtain medical care, find farm workers and, if necessary, have somewhere to work off the farm.

The decline in the profitability of many farm industries combined with the withdrawal of government and commercial services means that small rural towns cannot meet the needs of the families they serve. Developments in computer science and communications will allow considerable professional and clerical employment well away from the cities. This provides the opportunity for more employment in rural communities. Stronger rural centres would provide more services to the farming community and give increased opportunities for off farm work.

Strong Leadership required

“In a lot of cases agriculture is not proactive. It is usually drawn into something because someone else has an agenda”

Ellen Howard, ‘Australian Farm Journal’, July 1997.

Agriculture has suffered long periods of low product prices and periodic drought. The decline of rural towns has added to feeling off depression. Farmers are frustrated as they have little or no control over the prices they receive for their products, the level of taxes and municipal rates or the cost of transport and communication.

Strong leadership is required to develop a positive focus for rural Australians to help them meet the environmental, economic and social challenges that they face. Opportunities for rural development must be pursued with vigour. People will be hurt but it is preferable to have a clear positive direction for change than to be consumed by inaction.

The removal from production of marginal cropping areas, saline irrigation districts and parts of the arid rangelands presents a major challenge given the inherent social, political and economic barriers. Families in these areas should have the chance to start their lives again

while they still have sufficient financial resources and emotional strength. Direct subsidies aimed at maintaining the status quo do not make social, political or economic sense.

The management of large areas of former farmland provide the chance for developments in forestry, tourism, recreation and conservation.

There are further opportunities in the selection and domestication of plant and animal species more suited to the Australian environment. We would benefit if resources were put into developing farming systems based on native plants and animals. The commercial potential of a number of pest species should be exploited. Is there a place for the rabbit? Can water weeds be used to remove nutrients from contaminated water?

Targets must be realistic because information is not complete. We now know that some "good" farming practices advocated less than 30 years ago are not sustainable. Farmers can only act in light of the best available information. Some practices will prove to be more sustainable than others. Sustainable agriculture is something to move towards rather than a clearly defined end point. It can not be considered in isolation from broader community issues and the needs of the people involved.

Bob Edgar worked in Landcare for many years. He is currently at Melbourne University looking at

farmers perceptions of remnant native vegetation. Photographs by Carri Tiffany.

Profile of a Weeds Champion

by Glenn Simmons, DNRE

Jean Moir is a woman with numerous passions. A passion for the land, a passion for people and a passion for kelpies.

But her greatest passion is for the eradication of weeds. She is a weed champion. Some would even call her the Leongatha Legend. Since 1988 when the Department of Conservation allocated funding to fix the ragwort problem in Gippsland, Jean's been on the warpath.

With the help of such luminaries as Bob Edgar, Jean set up the Berry's Creek Landcare group, the first of five in the area. And the work has been quite remarkable. Following nine years of hard work the group is left with 8000 hectares of clean land.

Jean Moir and husband Bill have been married for 31 years and as Bill's a third generation farmer they've seen a lot of ups and downs on the land. They work over 300 hectares of clean land and run 50/50 sheep and cattle. Bill even remembers back to the Depression when 97 people were working in Mirboo North hand-pulling ragwort. How times have changed.

These days the Landcare group has 87 members and is not likely to grow any larger. But they do the work of many more, and much of that can be attested to the work ethic of Jean. "It's all about pulling the community together, recognising ownership of the problem and working together to solve the problem," Jean says.

"Not long ago we had a couple from Melbourne who were going through some difficult times physically. They had about 25 hectares full of ragwort but were incapable of doing the work. So 17 of us got together and cleaned the place up and it's been weed-free ever since." "We also keep the parks and crown lands clean too. It's just something we like to do."

Jean's battle with ragwort has raged for years. There's a glint in her eye when she gets serious on the subject. "Ragwort was the first seed to germinate after the bombing of

London during WWII," she says. "It can lay dormant for so long and then just pop up. But ragwort isn't our only problem. Each region has different problems which must be addressed.

"My biggest concern at the moment is the planting out of the riverbanks. If they are not looked after it will be an environmental disaster for future generations."

All land must be managed, whether it's riverfront, next to railway lines, roadsides - the lot, it all must be managed.

"Blackberry causes enormous damage. Apart from soil erosion on riverbanks it's a major hiding spot and food supply for vermin. We've got to get stuck into it now." But at 54-years-old, fixing up the riverbanks is a tedious, tiring and time-consuming process. And she does have a farm to run.

"Pests are not as great a problem as they used to be. We don't get many rabbits out here, but the foxes still take about 10 per cent of the lambs." Although the Landcare group doesn't regularly meet any more, any time something needs doing the group comes together. "We started with 65 in the group in 1988, then with sub-division the numbers swelled to 87 where it has remained," she says. "But the population decline since the SEC slashed staff at Latrobe Valley has had an enormous effect on the hobby farmers.

"In about three years we lost masses of people from the area, Jean's children Fleur and Stuart have also moved on. It's hard, but we still do the best we can. We still visit every new resident in the district and explain the area to them. We encourage people to work 12 months of the year on ragwort. Otherwise it can get out of hand."

Jean says full-time farmers know their weeds. Hobby farmers, on the other hand, have a mixed reputation when it comes to caring for the land. But she finds this fringe group an enthusiastic crew. "They are an easy lot to motivate. I find the hobby farmers are actually the best. "City people just don't understand the ragwort problem. But once they're educated and gain an understanding of the requirements needed to keep a property weed-free, they are quite excellent, especially as far as farmers are concerned.

"The hardest thing to get some people to understand is that you need chemicals to keep the land weed-free."

If you don't use chemicals then it forces your neighbour to use chemicals. It's a vicious cycle. I can show you how a three-year properly controlled program can bring the use of chemicals down to nearly zero. To this equation hobby farmers can relate."

The region is conducive to weed problems because the land is quite arable and the rainfall is 40 inches plus. But one problem is that the country is so steep in parts it's difficult to gain access to chemically control the weeds. "It's so steep you can't put a boom on the tractor so it must be hand work only," say Jean.

"This is why I feel the answer is in biocontrol. It's an avenue we must pursue vigorously." All of this augurs well with Government's War Against Weeds Initiative. The Government is spending \$12 million over the next four years to try to fix the rural weed problem - a problem which costs Victoria nearly \$400 million a year.

These days Jean's on a new kick. She breeds and trials kelpies. Has been for three years. "I love them. They work hard for me and give me immense satisfaction," she says. "They're not quite as smart as border collies, but there is just something about them ...

"The other week we had a group from the Chinese Ministry of Agriculture out there to see the dogs work. They thought they were great."

Jean has also been doing some trialling. “Well,” says Jean, “we had a little win a while ago but we’re not very advanced yet. We’re still working on it.”

If the ease in which the dogs round up the flock is any indication, the big wins are not far away. And if Jean puts her mind to it in the same fashion she attacked the weed problem in the area, then there’s going to be a few breeders and triallists out there who should rightly feel a little nervous about the future.

Captions: Leongatha: 8,000 weed free hectares.

On the road to Jean Moir’s farm from Leongatha.

Jean Moir with her kelpies.

(L to R) Ross Newton, Jean Moir and Les Hutchison from the Berry’s Creek Landcare Group.

Victoria’s New Catchment Management Authorities

Captions: Chairpersons of the new CMA’s with Minister Tehan and Michael Taylor. Drew English (North Central), Gerald Leach (Mallee), Bob Carrail (Corangamite), Lance Netherway (Wimmera), Ken Gaudion (North East), Minister Tehan, David Koch (Glenelg), Michael Taylor (Secretary DNRE), Duncan Malcolm (East Gippsland), Greg Pullen (West Gippsland), John Dainton (Goulburn Broken)

The Honourable Patrick McNamara, Deputy Premier and Minister for Agriculture and Resources welcomed new CMA members on their appointment.

Minister for Conservation and Land Management Marie Tehan announcing Victoria’s new Catchment Management Authorities.

The announcement of Victoria’s new Catchment Management Authorities heralds a new era in catchment management in Victoria.

The nine Catchment Management Authorities (CMA’s) will implement Regional Catchment Strategies in each of the existing rural Catchment and Land Protection regions.

For the first time, CMA’s will bring together the efforts of community service delivery and advisory groups, resulting in a whole of catchment approach.

CMA’s will combine the roles of existing: Catchment and Land Protection Boards
River management authorities
Salinity implementation groups
Water quality groups
Sustainable regional development committees.

Other roles of the new CMA’s will include identifying priority activities and work programs under the regional Catchment Strategies, providing advice to the State and Federal governments on resourcing priorities and negotiating with the Department of Natural Resources and Environment on regional service delivery.

CMA’s and their implementation committees provide a clearer focus for regional decision making and strengthen links with the landcare movement.

Board members have between them experience and knowledge of primary industry, land protection, water resource management, waterway and floodplain management, environmental conservation, local government, food industry and business/financial management. The Chairpersons are appointed for 3 years and other members for two year terms.

North East Catchment Management Authority

Ken Gaudion Boweya
Terry Hillman Lavington
Lindsay Jarvis Kergunyah
Mac Paton Tallangatta
Simon Penfold Myrtleford
Christine Prendergast Bright
David Sexton Albury
Noelene Wallace Wodonga
Ken Whan Taminick

Vision:

“Ensuring sustainable natural resource management whilst increasing productivity and community viability for the benefit of the North East Region and the downstream community”.

Phone: 060 556 124 Fax: 060 556 119

Glenelg Catchment Management Authority

David Koch Coleraine
Brian Learmonth Coleraine
Michael Murphy Mortlake
Lynn Murrell Portland
Ian Ross Telangutuk East
Basil Ryan Grasmere
Bill Sharp Branxolme
Richard Walter Hamilton
Peter Dark Mirranatwa

Vision:

“The Vision is one of a healthy and sustainable relationship between the natural environment of the Glenelg Region and the community’s use of land and water resources.” Executive Officer Steering Committee: Colin Dunkley

Phone: 03 5572 3033 Fax: 03 5572 5215

Mallee Catchment Management Authority

Gerald Leach Walpeup
Dorothy Brown Underbool
Rodney Hayden Piangil
Adrian Kidd Mildura
Barrie MacMillan Mildura
Steve Smith Merbein
Richard Wells Merbein
Reginald Wilkinson Yarrara
Stan Pickering Merbein

Vision:

“A healthy and productive region in which natural resources are managed to meet the community’s needs and expectations both for now and for the future”. Executive Officer Steering Committee: Jim Sisson

Phone 03 5022 3040 Fax: 03 5022 3061

East Gippsland Catchment Management Authority

Duncan Malcolm Boisdale
Peter Allard Wamgarabell
Marlene Battista Lakes Entrance
Shaun Beasley Stratford
Colin Murray Bairnsdale
Geoff Russell Nicholson
Chris Shearer Paynesville
Geoffrey Robertson Bairnsdale
Norman Wilkinson Dargo

Vision:

“Balanced urban and rural development that minimises the impacts of population pressures on the natural environment. Balanced and sustainable use of East Gippsland’s natural resources for a prosperous community. Enhanced water quality and flora and fauna values through sound land and water management”. Executive Officer Steering Committee: Chris Barry

Phone: 03 5153 0444 Fax: 03 5153 0458

Corangamite Catchment Management Authority

Robert Carrail Newtown
Claire Barber Shelford
Andrew Boyle Moriac
David Fiskin Ballarat
Kevin Knight Linton
John McDonald Wheelers Hill
Robert Missen Beeac
Harry Peeters Batesford
Cliff Tann Kawarren

Vision:

“The Corangamite community managing land and water resources based on an understanding of and a commitment to sustainable use, conservation and rehabilitation of those resources.”

Executive Officer Steering Committee: Don Forsyth

Phone: 03 5233 5541 Fax: 03 5231 3823

West Gippsland Catchment Management Authority

Greg Pullen Warragul
Trevor Andrews Morwell
Barbara Fulton Maffra
Angus Hume Leongatha
Kem Lamb Heyfield
Gerard McCrae Middle Tarwin
John O’Brien Cowwarr
Patrick O’Shaughnessy Croydon
Doug Treasure Stratford

Vision:

“To achieve a sustainable balance between the human need to utilise the natural resources of the region and the responsibility to ensure that these natural resources remain available for future generations”.

Executive Officer Steering Committee: John Slayford

Phone: 03 5174 2708 Fax: 03 5174 3944

Wimmera Catchment Management Authority

Lance Netherway Horsham
Joan Bennett Nhill
Joanne Bourke Rupanyup
Lyle Driscoll Stawell
Ross Haby Horsham
Barry Hall Edenhope
Colin Hall Stawell
Jim Kilpatrick Great Western
Ken Sleep Jeparit

Vision:

“In the Wimmera Regional, water and land will be nurtured, native flora and fauna will flourish, people will be happy to live, work and visit and agriculture and other industries will prosper”.

Executive Officer Steering Committee: John Young

Phone: 03 5382 1544 Fax: 03 5382 6076

Goulburn Broken Catchment Management Authority

John Dainton Mooroopna
Hew Davies Yea
Craig Madden Avenal
Athol McDonald Girgarre
Dianne McPherson Orrvale
Tom Perry Tatura
Peter Ryan Dookie College
John Gray Toolamba
Ailsa Fox Merton

Vision:

“Protect and enhance the catchment’s land and water resources to improve the region’s social well being, environmental quality and productive capacity in a sustainable manner”.

Executive Officer Steering Committee: Bill O’Kane

Phone: 03 5822 2288 Fax: 03 5831 6254

North Central Catchment Management Authority

John Brooke Pyramid Hill
David Clark Waubra
Ted Gretgrix Huntly
Goff Letts via Stawell
Terry Simpson St Arnaud
Frank Smith Swan Hill
Mostyn Thompson Woodend
Gordon Weller Tennyson
Drew English Kerang

Vision:

“An informed and responsible community using integrated and sustainable natural resource management to enhance the environment, land productivity and economic and social well-being of the North Central region”.

Executive Officer Steering Committee: Graham Barrow

Phone: 03 5444 6750 Fax: 03 5444 6721

News from the Peshurst Landcare Association

by Glenys Scholfield

Captions: Danny Reddan working on the Stream Health Project.

Lucas Cappicciano with Lloyd Mirtschin (L) from the Landcare Group discussing the Web of Green Project.

What have Landcare group members and University students got in common? In the case of the Peshurst Landcare Association, and two students from the University of Ballarat's Centre for Environmental Management, it is a vital interest in developing strategies for sustainable land management in the Peshurst area.

The Peshurst Landcare Association was formed in 1995 and is made up of five landcare groups who came together to raise awareness and promote the adoption of sustainable land management practices in the Peshurst area.

The Association's major project, Web of Green, is a district corridor strategy. Web of Green will, over time, cover this area in a web-like network of indigenous plantations. This will encourage wildlife, especially birds; provide shelter on these windswept Western District plains and most importantly, use more water in the higher reaches of the catchments and hopefully prevent rising ground water further down the catchment.

But the interests of the Association have not stopped there. It was soon apparent when farmers came together at meetings that a number of land management issues were concerning them.

"I'm not too sure about higher inputs for higher profitability, what about high nutrient levels in streams?"

"Yeah, but we don't have those sort of problems in this area,do we?"

"Well, what do these salinity readings mean anyhow? Have we got a problem in this area?"

The need for management strategies and working models was also brought up.

"Wouldn't we be better to put our Web of Green plans on one of those GIS computer maps?"

"But that'll take ages to do and where do we get a program?"

Towards the end of 1996 several projects were offered to the Centre for Environmental Management for senior students to consider. We believed that if students were doing 'real' projects and our area was being mapped, benchmarks established for future planning and strategies being developed, it would be a win for both parties.

Lucas Cappicciano and Danny Reddan have taken up the challenge to carry out a district corridor strategy and a stream health project for the group and do some very real projects for the final year of their science degree. They have met with the management committee of the group and clarified the needs of their client. The students will send a progress report to each monthly meeting. It will be necessary for the students to consult with landholders from time to time.

This is an excellent educational opportunity for the students and a good example of a mutually beneficial partnership between two community groups - farmers and students.

Graham Hunter, new CEO of GAV

by Jim Robinson - Greening Australia Victoria

Caption: G.A.V. assists landholders in strategic revegetation. Sugar Gums (Eucalyptus cladocaylx) and Tasmanian Blue Gums (Eucalyptus globulus) 9 months after planting near Winchelsea.

Graham Hunter started as GAV's new Chief Executive Officer in mid May this year. He brings a wealth of experience in landcare management, having been a director in catchment management and sustainable agriculture in the Department of Natural Resources and Environment, a former director of the Environment Protection Authority and manager of the Government's Salinity Bureau. He has also been a member of a number of advisory bodies including the National Soil Conservation Advisory Committee and has worked in environmental management in England, France and the USA.

Graham noted that since its inception, GAV, through its regional facilitator network and training programs has assisted and supported thousands of landcare projects working with landholders and landcare groups but also state and local government agency staff, school groups and service clubs. "Projects have included strategic revegetation of farmland and roadsides, management of remnant vegetation, field days and farm walks, farm forestry advice, seed collection and seedbank management, direct seeding and native grasslands management," said Graham.

"This reflects the massive interest by the Landcare movement in the many roles of native vegetation in sustainable agriculture, in the long term productivity of our land and water resources, in maintaining biodiversity and rural communities and landscapes. These all flag the increasing need for organisations such as Greening Australia."

"We aim to build on the experience and expertise of our existing facilitator network in the regions to provide greater support for the Landcare movement. This will include an emphasis on monitoring and evaluation to help us to continually improve our services," Graham added.

"We shall work closely with the Catchment Management Authorities in all regions of Victoria to help implement the regional catchment strategies, and aim to provide further opportunities for our sponsors and to work closely with our many members to enhance the value of the organisation," he concluded.

Welcome aboard, Graham!

Tati Tati Nature Reserve to become ecotourism site

Thousands of people are expected to flock to Manangatang if the local Landcare Group has its way.

The Department of Natural Resources and Environment and the Landcare Group have funded the construction of a vermin proof fence around the 400 acre site at Tati Tati. The Green Corps will be removing the old fence.

"Once the fence is up we want to establish a pathway with labelled native species so people can experience the Mallee and identify many of its plants. We intend to erect large information boards where visitors can read about the history of Tati Tati, landcare issues and about the Mallee and its pioneers," Manangatang Group President Bill Sutton, said.

DNRE Regional Co-ordinator Steve Erlandsen is a strong supporter of the project and has assisted in obtaining the initial funding grant. "I believe Tati Tati can become a bench mark

in terms of ecotourism and landcare and give visitors a greater understanding of the Mallee," he said.

This is just one of the projects on the go at Manangatang. The Landcare Group is also involved in rabbit control programs, a major tree planting, project, biological controls and cropping trials. The groups' focus is on communications, letting members know what's on offer in landcare. We have had a great response to rebates offered on ammunition, larvicide, trees and Foxoff which are all available from our new office.

Bill Sutton went on to say that streamlined meetings, newsletters and strong links with the local media are all helping to get the landcare message out to landholders and townspeople.

National Landcare Conference Study Tour

Ninety one applications were received for a study tour to take in the National Landcare Conference in September, Project Platypus in the Wimmera, Landcare Projects at Kaniva and Horsham.

Forty one people have been chosen to represent nine CMA regions at the conference.

Funding has been supplied by the National Landcare Program to increase community participation in the conference.

A report on the tour will be featured in a future issue of Victorian Landcare Magazine.

WHEN A BLOOM IS UGLY - water quality in the Glenelg catchment

Caption: Nicole Davidson tests water at Lake Hamilton. In 1994 the lake suffered an outbreak of blue green algae.

The people of Hamilton shudder when they remember the summers of 1994/95 and 1996/97. Lake Hamilton, the town's popular swimming, rowing, skiing and picnic spot developed into a foul smelling, toxic soup. It was an outbreak of blue green algae and it had a big impact on the town.

Lake Hamilton is a man made lake on the Grange Burn River which flows through Hamilton. Blue green algae live in the water column, they move up to use light and down to feed on nutrients. The algae only become a problem when nutrient levels are excessively high causing an algal outbreak or 'bloom.' The algae uses all of the oxygen in the water, killing fish and leaving them floating on the surface. As the algae multiplies it forms a foul smelling green scum.

Nicole Davidson, Nutrient Management Officer at the Department of Natural Resources and Environment in Hamilton explains that blue green algae not only looks disgusting but is also dangerous. "Blue green algae releases three types of toxins; hepatotoxins affect the liver, neurotoxins affect the nervous system and endotoxins cause gastroenteritis and skin rashes. People are most commonly affected by endotoxins. They may have skin contact with the algae, go away and get sick. Often people don't link the sickness or skin complaints with exposure to the algae."

Nicole says that even after the algae dies it can remain toxic for weeks or months.

Algal blooms aren't new. A bloom on Lake Alexandrina in South Australia in the 1870's caused large numbers of stock deaths. Studies in other parts of the world have found healthy spores in ancient lake sediments. And there are reports of blooms in Roman times.

The bloom at Lake Hamilton caused considerable anxiety in the community. Both farmers and townspeople were quick to blame each other for contributing excessive nutrients into waterways.

Nicole says that the nutrients come from more than one source. "It's more complex than just blaming agricultural run-off. Nutrients get into the watercycle from many different places, whether it is agriculture, industry or stormwater from town drains."

To avoid further blooms a lot of information has been collected about water quality in the catchment. In 1995 Waterwatch was introduced to local schools. Waterwatch involves students in monitoring local rivers and creeks for indicators like turbidity, salinity pH, nutrients and the presence of macroinvertebrates. The program has been immensely popular, every school in the Glenelg catchment has been involved at some time or another.

Baimbridge College is a good example of local commitment to Waterwatch. The school is currently monitoring 18 sites across the catchment, focussing on the Glenelg and Wannon Rivers and their bigger tributaries. The monitoring is done at VCE level and all of the schools' year nine students. On the Wannon River students will be monitoring the habitat of the rare pygmy perch.

Nicole says after schools have been involved in monitoring they want to see action. She is working on an innovative stormwater program called 'drains to the Grange'. Students will test their creativity by helping to educate the rest of the community about stormwater. They will stencil colourful and catchy slogans on stormwater drain covers in Hamilton showing residents where the water from that drain ends-up.

Nicole says people need to understand what happens to water when it runs off their street or paddocks. "In the Glenelg catchment all water ultimately flows down the Glenelg River and out through the Lower Glenelg National Park," she explains. "The Glenelg is a pretty special river, it has been declared a Victorian Heritage River. We have a responsibility to protect its tourism, fishing and heritage values from any threats."

Nicole is working on a nutrient management strategy that will document detailed actions to help avoid further blue green algae blooms and improve water quality in the area.

Remnant bush gets a fence and a future at Hotspur

Caption: Midge Gough is working to protect remnant native vegetation at Hotspur in Western Victoria.

Midge and Jim Gough and their son Philip are helping to save the bush on their farm 'Coora' at Hotspur. The property is bordered by bush which extends almost through to South Australia. Coora is graced with steep bush, big old blackwoods and some rare and beautiful orchids.

Midge, Jim and Philip's efforts to protect remnant native vegetation have been boosted with a Save the Bush grant.

They will fence off 85 hectares of natural bushland to encourage the growth of many native species, including rare orchids and small understorey plants. Jim Gough, a keen naturalist says he has seen the damage that sheep and cattle can do to native bush. "Keeping them out is essential," he said. Jim has identified at least 18 different species of orchids on the block.

Midge, Jim and Philip will also complete fencing along Wild Dog Creek to allow regeneration and create a corridor from the Crawford River Regional Park into previously fenced areas.

Midge says the creek has suffered from poor water quality, bank erosion and continual trampling from stock. "The fencing will protect native fish, crustaceans and wetland plant communities," she said. Their work on the Wild Dog Creek was motivated by what Midge describes as "the stunning regeneration," they saw in an area fenced three years previously.

Midge and Jim say that fencing out remnant bush benefits animals as well as plants. Midge reports seeing koalas, antechinus, dunnarts and lots of snakes. "The water birds on the marshy wetlands around the Smokey River are very impressive, we see ducks, swans, rails, greenshanks, bitterns, pelicans and many other species," she said.

The Save the Bush Grant application was prepared by the Smokey River Land Management Group and identified under the Smokey River Catchment Plan.

Justin Cook, Tree Victoria Officer at the Department of Natural Resources and Environment in Hamilton says there are two types of projects under Save the Bush; planning and on-ground works. "Works generally means fencing off remnant native vegetation to increase its conservation value. We have seen very few of these projects so it is great the Smokey River Group is taking the initiative," he said.

Midge and Jim Gough believe that their work on saving remnant native vegetation will have long term value for tourism. And they have no doubt that the work will continue in the future. Midge says that their son, Philip, has been the main motivator behind the project.

RURAL WOMEN'S NETWORK

The Rural Women's Network (RWN) was established in 1986 in recognition of the key role of women in sustaining and maintaining families, farms, businesses and communities.

The RWN links women's groups and individual women, enabling women in rural Victoria to have a more active and influential role in public life, and in government decision-making which affects rural communities. The RWN represents more than 16,000 women throughout rural Victoria.

Women in Landcare

In 1996 the Rural Women's Network, together with the Office of Rural Affairs and the Institute for Sustainable Irrigated Agriculture (DNRE) in Tatura obtained NLP funding to conduct research into the participation of women in Landcare.

The report of the project 'More Than A Question Of Numbers - Working With Women And People From Non-English Speaking Backgrounds Towards Total Catchment Participation' was launched in March 1997.

Get networked

If you would like to get involved in the RWN send your name and address to the address below and we will send you our free publication NETWORK three times each year. NETWORK is our most visible and vital link for rural women. Each NETWORK encourages contributions from rural women all over the state, from a range of backgrounds and experiences.

Copies of the commemorative tenth anniversary issue of Network are now available.

Contact:

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ON THE SHELF - New Publications

A HAVEN FROM STORM AND DROUGHT- THE ROLE OF TREES IN SUSTAINABLE AGRICULTURE.

This is the third workbook in Greening Australia's highly regarded series on trees in sustainable agriculture. Steve Burke and Allan Wilson are the capable guest editors with case studies by Geoff Wilson.

The workbook is split into two parts; shelter and fodder. The shelter section covers the science of how shelterbelts work through to choice of species and design. There are four excellent case studies that put a human face to the information.

The fodder section is more scientific but still with a practical bent. The section on principal fodder shrubs in use gives a valuable breakdown of the quality, uses and economic returns of the mainstay fodder species.

All in all an excellent and timely publication. Call Greening Australia on (06) 281 8585 for information on retail outlets. The workbook sells for \$12.00.

AQUATIC LIFE IN FRESHWATER PONDS

As the aquaculture industry looks to more sustainable production methods it is increasingly important to understand what happens in aquatic ecosystems.

This new book is an excellent guide for farmers, students and researchers. It includes identification keys to common taxa with detailed illustrations and colour photographs. There is an extensive checklist of aquatic organisms known to occur in freshwater ponds and farm dams throughout south eastern Australia.

Copies of the book are available from the Murray Darling Basin Freshwater Research Centre, PO Box 921, Albury, NSW. 2460 for \$30.00 plus \$6.00 postage.

THE REHABILITATION, CONSERVATION AND MANAGEMENT OF REMNANT VEGETATION

Large areas of the Australian landscape, including much of our most productive land, have been cleared of their natural vegetation. There is growing evidence that many parts of our rural landscape will be devoid of native bush if we do not learn better management of these remnants.

This occasional paper (11/96) outlines a program jointly funded by LWRRDC and the Biodiversity Group of Environment Australia to devise improved methods of bushland management. The program aims to assist government agencies, community groups and landholders to apply improved knowledge and understanding gained from research to remnant conservation.

Available from LWRRDC on (06) 257 3379 for \$10.00.

Landcare on the Web

by Tess Goodwin, Landcare Consultant

Blue still seems to be the main colour of Victorian skies. As drought appears to be on the horizon, there are some unique advantages of using the Internet to access the latest forecasts and weather predictions.

Today's Weather

<http://www.bom.gov.au/climate/ahead/>

METNET is the home page of the Bureau of Meteorology. Featuring the latest forecasts, as well as meteorological and coastal observations, the daily weather forecasts are broken down into regional districts within Victoria and Australia. This page gives rainfall outlooks, El Nino information and offers links to other relevant sites.

For a look at the Bureau of Meteorology's Drought Index, go to

<http://amdisa.ho.bom.gov.au/climate/drought/drought.shtml> This site offers an up to date drought statement and also a rainfall deficiency map.

<http://www.pmel.noaa.gov/toga-tao/el-nino/home.html>

We all know that the El Nino effect is responsible for dry weather patterns in southern Australia. But what is El Nino? This page explains the El Nino effect and illustrates the difference between normal and El Nino conditions using diagrams, satellite imagery, forecasts and sea level data.

<http://www.brs.gov.au/brs/apnrb/drought/drought.html>

For the rundown on Australia's National Drought Policy, which was agreed to by Commonwealth, State and Territory ministers in 1992, visit the Bureau of Resource Science's drought page. The site also offers links to many other contacts, including the Climatic Information Highway, the USA National Drought Monitoring Centre, and the Bureau of Meteorology.

<ftp://ftp.jcu.edu.au/JCUMetSat/aush-last.gif>

What weather check would be complete without a peek at the daily Australian Weather Satellite Image?

My email address is forland@shepparton.com.au if you have discovered any unusual Landcare sites on the World Wide Web.

Rio Tinto supports community water quality monitoring

The farming community in the central Hopkins River catchment is benefiting from the studies of school students. Pupils at Mortlake College are monitoring water quality and providing data to the Central Hopkins Land Protection Association.

"They are providing biological and chemical yardsticks to monitor the level of degradation of stream quality in the district" says the College's Coordinator of Geography, Anthea Good.

The programme is supported by Rio Tinto, formerly CRA, a mining company that is actively involved with communities and the environment. Rio Tinto Exploration has donated top level technical equipment including a photometer, (a machine to measure water quality), to assist the school in the project.

Speaking at the presentation of the equipment to the College Mr David Morgan, Rio Tinto Exploration's Manager of External Affairs, said "We are always pleased to form partnerships with communities where we are exploring. The quality of the work being done by the College students is of a very high standard and will benefit the local farming community."

So significant is the community benefit of Mortlake College's work that it has attracted interest from overseas. Two schools from America one from South Africa and a European school are to join the programme exchanging data with Mortlake College via the Internet.

Speaking from Tucson, Arizona, Ruth Russell, Vice-Chair of the great American conservation group Audubon Society said, "This is tremendously exciting. To have school kids in the United States swapping environmental information between five schools on four continents is encouraging for the future. Let's hope the programme expands!"

For further information contact:

Richard Weatherly, Chairman Central Hopkins Land Protection Association (03) 5599 7276.