

Rural-peri-urban interface and extension

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Abstract

A growing proportion of agricultural landscape in Victoria is managed by small, lifestyle landowners that derive the majority of their income from non-farming activities. Many of these farms are located in high rainfall, high value agricultural land near-urban locations. As a key stakeholder group in future landscape management, the sector may be viewed as a potential threat or as possible allies for improved natural resource management, industry development and biosecurity. There is a need to tailor industry and environmental extension to engage the small and lifestyle farm sector. Understanding location (place) using socio-demographic and industry trends coupled with knowledge of the characteristics of the sector will provide keys to the development of appropriate practice change tools and extension approaches.

Historically, the needs and impacts of the sector within the rural-peri-urban landscape have not been specifically recognised or targeted in extension strategies and programs. In addition, part-time or hobby farms who do not have farming backgrounds may be subject to critical appraisal by full-time farmers and extension service providers. As such, this sector does not always have easy access to land management or industry advice. Our research has identified the importance of small and lifestyle landowners as custodians of our natural resources and the need for improved delivery of extension to engage the sector. This will require a change in extension approaches and practice.

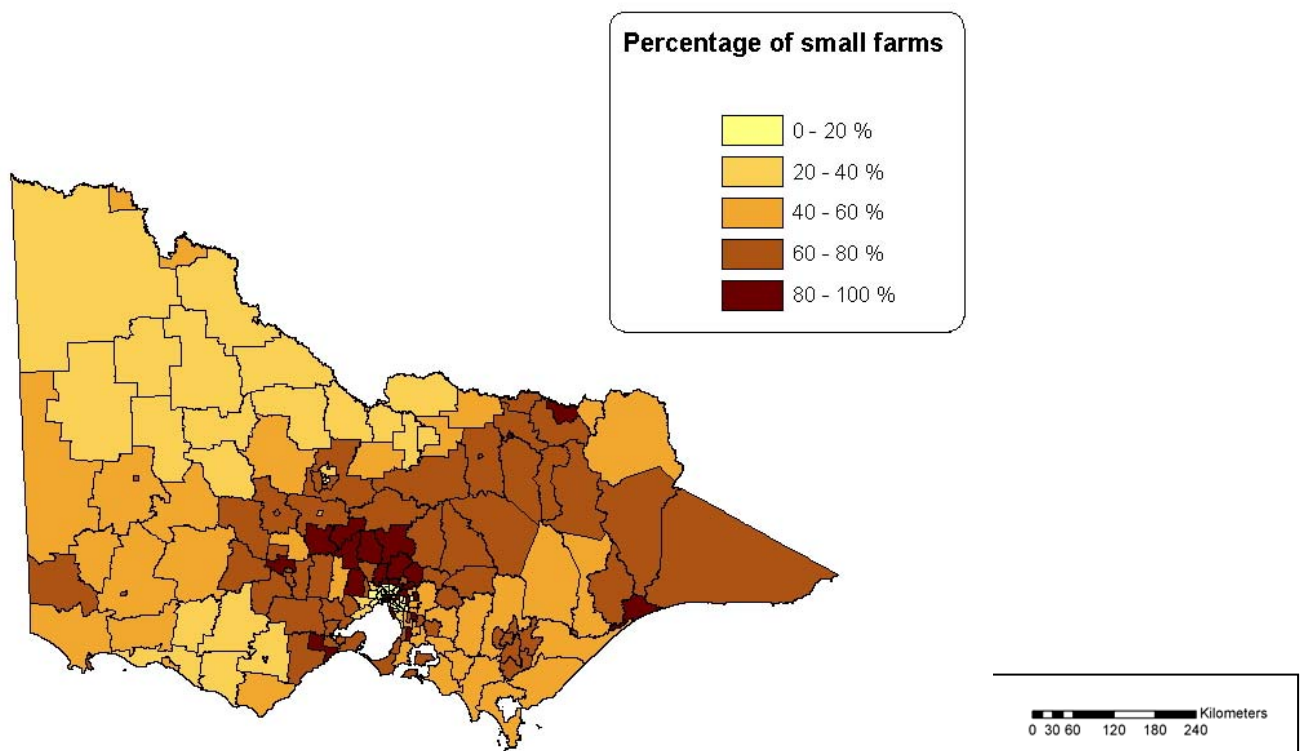
This paper reports progress towards developing understanding of the natural resource management information needs of the small and lifestyle farmers and pathways to engage the sector to respond to community natural resource management expectations. People attributes in landscape ownership will ultimately influence land use practice. The emphasis is on improving understanding of small and lifestyle farmers in order to enhance information delivery to engage the sector in sustainable land management. An understanding of the small and lifestyle farm sector's views, priorities and cultural contexts will be able to contribute to the development of agricultural extension policy and practice.

Key learnings from this study suggest the small and lifestyle farm sector are:

- distinct groups, so programs/policies should be appropriately targeted and networks developed for this sector.
- generally concerned with lifestyle, not economics, as a driving force of why they own land and how they manage it.
- responsive to horizontal network approaches (eg Landcare) not just because of an interest in sustainable land management but because these networks can help them “settle in” to their new lifestyle and can be a source of local information and friends.
- interested in new ideas and learning. Particularly learning which involves exchange of a range of alternative strategies that:
 - are based on local information;
 - are presented in a practical way and at an appropriate time (generally outside of business hours)
 - allow for networking with other landowners and provide personal contact with extension providers.

1. Introduction

Rural landscapes are changing as more people seek country lifestyles on small parcels of the agricultural landscape around and beyond the peri-urban fringe. Almost 16.6 million hectares of Australian land is managed by sub-commercial farmers¹, who typically derive the majority of their income from non-farming activities (Hooper *et al.* 2002). In Victoria, small farms greatly outnumber large farms, and clusters of small properties dominate the landscape in some high rainfall zone catchment areas (Barr and Karunaratne 2001), see map below. In the north east region more than half of the 14,000 landholders manage properties less than 40 ha. Anecdotal evidence suggests small properties owners in the rural-peri-urban interface have limited knowledge about agriculture and natural resource management. Concerns have been expressed as to whether these landholders are making the most appropriate use of the land (Black *et al.* 2000). However, it is widely acknowledged that small and lifestyle landowners can make a substantial contribution to rural communities and manage a significant quantity of relatively high value, potentially highly productive land. Off-farm work and associated time constraints have been linked to an interest in low-labour land management practice and limited engagement in extension programs (Collier 1995, Curtis *et al.* 1997). There is no one consistent definition of small farmers, and in most statistical databases the definition is based on estimated value of agricultural operations. For the purpose of our qualitative research, however, we have adopted a description of small, lifestyle farmers/landowner as those who own between 2 and 100 hectares of land and derive most income from off-farm sources.



Data Source: Farm Census 2002-2003
Projection: Transverse_Mercator
Datum: GCS Australian

Figure 1 Small farms (Estimated Value of Agricultural Operations between \$5 000 and \$75 000) as a percentage of all farms in each statistical local area in Victoria.

¹ Sub-commercial farms are defined as establishments with some agricultural activities but with an estimated value of agricultural operations of less than \$22 500 (Hooper *et al.* 2002).

2. Changes in agricultural land ownership and landscapes

Socio-demographic and industry trends suggest five emerging agricultural landscape types for Victoria that will have a significant impact on future policy and extension practice for agriculture production and natural resource management (Barr 2003). These agricultural landscapes include irrigation, broadacre cropping, transitional, amenity farming and peri-urban landscape. Our work suggests a merge of amenity farming aligned to peri-urban landscapes as one landscape type. This mix can be described as follows.

Amenity farming landscapes – characterised by small properties, older farm population, lifestyle, young families, and minimal farm aggregation. Typically within commuting distance of major centres, making farming no longer viable as a sole enterprise and resulting in land values higher than agriculture can pay. The predominant agricultural industry is beef production, however, opportunities in specialised rural industries for niche products for local market created. Strategies for achieving biodiversity conservation in conjunction with productive land-use have been identified (Hollier et al. 2004).

Peri-urban landscape – characterised by small properties, capital intensive agricultural enterprises in response to high land prices and/or elite rural lifestyle associated with amenity value and space.

In recent years there has been speculation about a change in the distribution of farm sizes. Rates of change have varied but it is not the small farms that are disappearing the fastest from agriculture. In our north-east Victoria study area, medium farms have been divided into small block allotments rather than being taken over by larger farmers. In some Shires small and lifestyle farming (amenity farming landscapes and peri-urban landscape) dominate. Off-farm income has been acknowledged as critical to the welfare of families that operate and manage small holdings. In the case of most people involved in our study, this is a deliberate choice, the land is for lifestyle reasons, and there is generally not a strong desire to make the agricultural business the major source of income.

Emerging landscapes are dynamic but provide a valuable sign post of the types of private rural land managers who may need to be considered by government agencies implementing policy and extension approaches. Increasing numbers of people are being attracted to a rural, or country, lifestyle. In Victoria there has been a significant increase in the number of rural holdings under 50 hectares (ha) created as a result of a subdivision boom. In 2002, over 3000 rural properties between 2 and 50ha were sold (Landata 2002). Often these subdivisions occur in catchments categorised as high priority for ecosystem services. As a snapshot across the Victorian landscape, 2- 20 ha lots had the biggest change over in sales each year 2000-2002 (44%), followed by 51-200ha size lots (19-22%); followed by 21-50 ha lots (17 - 18%), and 0-1.99 ha lots (10 - 14%). The larger lot size of '200+ ha' recorded the lowest sales (4 - 7%) of total sales. Land sales over the three years to June 2004 averaged around 5,000 for non-metropolitan Shires.

3. New clients for extension

Our research findings suggests that many buyers of small and lifestyle farms have limited knowledge about agriculture and natural resource management but are keen to learn. Newcomers to small farm ownership often have a limited agricultural background, romanticise country living and find it difficult to participate in some group learning activities (particularly those for long established agricultural industries) and access appropriate information. Off-farm work has been associated with limited time for involvement in traditional extension programs. Characteristics of the sector that will influence extension approach design for practice change are summarised below.

Table 1: The "top ten" characteristics of small and lifestyle farmers.

CHARACTERISTICS	RATING
1. Land size	Small
2. Connection to major centre	Moderate/High
3. Disposable income	High

4. Outside labour	Moderate
5. Off-farm income	Very high
6. Distance from regional centre	Low
7. Technical agricultural and land management expertise	Low
8. Business expertise	Moderate/High
9. Farming history	Low
10. Connection to industry bodies	Low

Implications for agricultural extension policy and practice

Engaging the small and lifestyle sector in extension will require a change in the way extension agencies approach this sector. The adoption of environmentally sound farming practices must be considered in the social context. There is a need for extension practitioners to fine-tune their methodological approaches, select appropriate decision-support tools and target the needs of landowners within specific environmental and socio-economic settings. Land-use change models also suggest that people respond to cues from both the physical environment and socio-cultural context, and behave to increase both economic and socio-cultural well being. Better understanding of farming subcultures and development of improved mechanisms to facilitate adoption of best practice for natural resource conservation and industry development is warranted. More attention needs to be given to landholders' concerns and opinions, particularly in regard to environmental management and sustainable agriculture. Understanding the client base or community of interests (ie. small and lifestyle farmers) will be critical for successful practice change.

4. Connecting small, lifestyle farmers with extension

Our research findings suggest small and lifestyle farmers strongly value rural lifestyle and have a strong land stewardship ethic. The study highlighted a belief that natural resource management information pathways were difficult to access and that the landholders sometimes felt marginalised when they participated in extension activities with larger property owners. Traditional productivity based extension programs were rarely used by people who had brought the land primarily for lifestyle or conservation reasons. Scheduling of extension activities, productivity focus and time pressures due to off-farm work were cited as the main reasons for lack of involvement. In addition, our research has shown that small, lifestyle farmers identify a number of issues and challenges, and production is not always high on their list of priorities. Most land managers in the sector nominated 'lifestyle' before farm profit as a driver for investing in the land. There was a high level of enthusiasm to attend learning-based activities in land management, especially if the activities were viewed as relevant to the small and lifestyle sector.

Information sources accessed by small lifestyle landowners

Interviews and discussion groups with small farmers revealed that a variety of sources of information and training were accessed by the sector. Newsletters, neighbours and newspapers were the major sources of natural resource management information exchange. Neighbours with large farms played a significant role in providing technical information to newcomers. However, there were conflicting views on the value of different information sources. For example, some people did not read pamphlets at all, others found that neighbouring farmers were not a source of information because the lifestyle landowners perceived they were viewed as too alternative by their neighbours, and hence there was limited interaction.

Importance of networks

Social networks play an important role in information exchange and subsequent adoption of land management best practice in response to time constraints associated with off-farm work and the lack of

opportunity to attend learning activities. Our work suggests that the sector favours horizontal networks (such as Landcare), which has implications for future extension projects (Strategic Policy Division, 2004). Horizontal networks relate to land use change networks that focus on innovation and learning, sustainable resource use, implementing adaptation, innovation, participation and well being. Landcare was a popular network and a useful starting point to find out land management advice and to access funding for environmental works. Horizontal networks are characterised by implementing practice change that adds (perceived) value to social and/or environmental factors and are concentrated in place (possibly multiple use landscapes). In contrast vertical networks (networks of agricultural production chains) focus on industry, economic development, producing a quality commodity and are characterised by implementing change to enhance and maintain market access usually concentrated in landscape types based on industry location (Strategic Policy Division, 2004). As discussed previously, small and lifestyle farmers often have less emphasis on production, so vertical networks tend to be less relevant to this sector. Group based extension has been attributed to increasing networks. This extension practice with its emphasis on adult learning principals has facilitated the entry of rural people other than producers into agricultural issues, particularly the Landcare program (Marsh and Parnell, 1999). The group approach provides a framework for integrated information delivery relating to a range of factors (e.g. sociological, environmental, production) (Woods et al. 1993) and appears to be a preferred information exchange pathway for small and lifestyle landowners. However, it needs to be noted that some small and lifestyle farmers have indicated a preference for groups that are made up only of other small property owners and people new to farming, whereas others appreciate mixing with more experienced land managers.

Goals and drivers influencing land management strategies

There were many reasons given by small and lifestyle landowners for adopting their particular land management strategies. Conservation activities were often carried out because of an environmental ethic, as opposed to being driven by financial incentives. Choice of agricultural enterprise/s resulted from a consideration of factors such as labour requirements, attitudes to working with animals, interest in diversification, size of land, or because of an interest in the particular enterprise (ie hobby).

Specific agricultural practices were mainly adopted because people understood those strategies as being the recommended or preferred methods. Because most small, lifestyle landowners were not experienced in agriculture, they were not using management strategies that had been passed on from generation to generation, rather they were accessing information from a wide range of sources. Additionally, personal values influenced the choice of some management practices, for example, selling livestock direct to abattoirs rather than putting them through the saleyards because of animal welfare concerns.

Factors contributing to the decision to live on a small block were related to the perceived lifestyle benefits of living outside of a city or township (space, freedom, quietness), an interest in improving the environment, or a desire to try farming (to have an outdoor, busy lifestyle, to make some 'pocket money' or as self-actualisation and setting themselves challenges).

Small farmer views towards education and training sources

There were mixed reactions from the sector towards education and training sources. Aspects of education and training that were deemed positive included:

- One on one information, especially if extension providers visit the property
- Local information (eg Land for Wildlife staff, Landcare facilitators)
- Personal invitations to attend an activity
- Inclusion of contact numbers on written information
- Practical courses run by people who have been through the same experiences
- Opportunities to visit other farms (large or small) to assess the success of various approaches to land management and to build networks

Some negative reactions stemmed from:

- Extension providers not responding to questions and inquiries, or suggesting the landowners contact someone else; "it's not my job"

- Feeling like a guinea pig, being used to test new regulations, with a belief that positive actions were not sufficiently recognised by extension providers, but rather that they concentrated only on the problems
- Staff who were not perceived as being able to relate to the small farmer's situation, focussing too narrowly and lacking an holistic view of the system
- Reduced access to government extension providers
- Perception of being treated unfairly; government extension being seen to help large farmers more than the small farmers, despite both being tax payers
- Activities being held during the week, which often results in difficulties for small, lifestyle landowners wanting to attend (the exceptions being retirees)
- Domination in education and training activities by larger farmers
- Activities that are perceived as not well structured nor practical enough
- Lack of recognition of small, lifestyle landowners' interests that may conflict with traditional agricultural management styles and no provision of alternative strategies (eg alternatives to synthetic fertilisers, poison baits or introduced pasture species).

Training needs identified by the sector

Education and training needs identified through interviews and discussion groups fell into three broad categories, 'getting started,' 'business management' and 'conservation and environment.' The responses were generated through both direct questioning and indirect discussion. Needs marked with an asterisk (*) are an interpretation by the researchers, they may have been cited as a learning or an area of concern within a discussion, they were not direct answers to a question about education and training needs. The following topics are *not* listed in order of priority.

Getting started / Reality check

- Local services – what is available and which people are trustworthy
- Information on fair prices for goods and services (eg fencing, plant tubestock)
- Equipment needs on a small property
- Information for prospective buyers, so people have a better idea of what they are getting into (eg the weeds that might not be visible until livestock are removed; the amount of work required and the constant need to be managing the land; the costs of establishing infrastructure and long time lag until such investments pay off)
- Infrastructure requirements for particular enterprises, for example, proximity of abattoirs that can service the producer's needs*.

Business management

- Skills to establish workable cooperatives of small, lifestyle landowners
- Leasing arrangements (striking a fair deal between parties)*
- Diversification opportunities and feasible options for small blocks
- Specific enterprise issues – eg livestock health, olive processing, orchard protection from birds*, pasture species recognition
- Organic, environmentally friendly and alternative management strategies
- Drought management and recovery (pasture recovery, feeding)*
- Tax issues – registering as an agricultural business – obtaining the supporting documentation
- Selling and marketing.

Conservation and environment

- Understanding the grants/assistance available for land management activities
- Management of bushland*
- Weed control methods, weed identification, reason why weeds should be controlled, the need to follow up the next year, how to access biocontrol agents, organic control, control on difficult to access land, using burning as a management tool
- Strategies to keep grass down on properties with no livestock
- Management of plants and wildlife in drought*.

Education and training delivery needs

A number of issues relating to the delivery of education and training were identified in discussion groups and interviews with small lifestyle landowners, including:

- Recognition of small landholders as a distinct group, so programs can be targeted to them, and so they can form small farmer networks
- Specific targeting of education and training to absentee owners, including land management approaches that are not time consuming or costly
- Sufficient notice of events, especially for absentee owners; alternative communication channels; weekend access to training
- The need to learn details from other, practising, landowners, as written material tends to only teach principles not the subtleties required for particular situations
- A coordinated approach so that all the relevant information for the sector can be sourced from one location
- Access to information for prospective small landowners
- Access to written background material before a field day or visit by an expert.

5. Discussion

Rural-peri-urban landscapes provide new opportunities to improve the effectiveness and reach of extension. The success of future agricultural extension policy and practice will be closely aligned to recognising the forces driving change associated with emerging landscape types and the people in the landscape - their characteristics, views and values. Our research suggests there will be a need to facilitate the establishment of cross industry networks of learning resources and pathways to improve engagement of the small and lifestyle farmers to respond to community natural resource management and agri-food production expectations. The challenge will be to influence rural service providers and recommend delivery mechanisms for innovative knowledge exchange programs. Understanding the spatial association and interactions of the small and lifestyle farm sector coupled with on-ground knowledge of the social construction of the landscape will be fundamental for improved in extension design and practice.

Implications to consider in informing agricultural extension policy and practice include:

- Small and lifestyle farmer diversity. As with traditional farmers, this is not a homogenous group, they all perceive the world around them differently, and all have different notions of what is 'good' land management and where 'agriculture' fits.
- Characteristics of the sector can be clustered and economics rate poorly. Land owners of a particular 'style' can be identified and share common attitudinal and behavioural characteristics.
- Values are important. There will always be variation in the way people adopt and participate in land management activities. Inherent diversity within private land ownership and rural communities means agricultural extension practice must be flexible.
- Small and lifestyle farmers often do not share the same professional networks as the more traditional landowner.
- Landowners may not value the information sourced from other land managers because they don't share a similar personal construct or worldview about farming.

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