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The use of networks to improve information flows between grower groups and researchers

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Abstract

In Western Australia, farmer-led farming systems groups (grower groups) are actively forming partnerships with other grower groups, researchers and private industry. As the broadacre grain and livestock farming system increases in complexity, existing partnerships may not be adequate and a new approach is needed. An organisational form that is designed to work in such complexity is the 'network'. Grower group networks are able to create an environment where shared understanding and/or collective action is used to achieve outcomes where there are no readily available solutions. In 2002, the Grower Group Network project was established to support grower groups in a network to provide their members with access to the latest information and research. The organisation of farming systems groups into networks has made them more accessible and relevant to researchers. In this paper, a description of the role of grower groups and grower group networks can play in research projects is outlined, illustrated by case studies of successful partnerships. The most successful projects occur when farming systems groups and research providers develop and implement a new project together. Grower group networks are also a very effective means of delivering research outcomes as they can provide researchers with opportunities for impact well beyond partnerships with one or two grower groups. The paper concludes with a description of the future challenges for grower group networks.

Keywords: Participation; Adoption; Extension; Alliance; Information delivery

1. Introduction

This paper presents a description of grower groups (also called 'farming systems groups') in Western Australia and the networks they have formed within the local and statewide research community. It begins with a general overview of grower groups—how they developed, where they are located, and a snapshot of their general aims and activities. The evolution of a grower group network is then described, followed by some detail of the current activities of the network. The role of grower groups and grower group networks can play in research projects is outlined, illustrated by case studies of successful partnerships. In this new environment, groups can be viable research partners as well as performing the more traditional role of demonstration and communication of research results. The paper concludes with a section on the challenges inherent in this approach and some thoughts on the future.

Over the past 10 years, the number of grower-led groups engaging in research and extension in Western Australia has increased rapidly. The groups have varied histories, but many were catalysed during the 'Decade of Landcare' which began in 1990. This was an Australian Government program that encouraged rural communities to work together to protect the soil, water and vegetation in their local area (Chamala and Mortiss, 1990). Over time, the most successful community groups were those that took responsibility for planning, implementing and monitoring their own activities (Chamala, 1995). They applied local knowledge to focus on production and sustainability issues at a farm and catchment level and worked with government agencies to develop better farming practices. There was a move away from 'top-down' approaches of scientists to farmers, towards extension methodologies that emphasised information flows, adult learning principles and participation by stakeholders (Marsh and Pannell, 2000). Growers began to have more control over the information they needed and the way it was delivered.

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Many Landcare groups faded once government support declined at the end of the decade. However, a large number thrived and now actively seek out partnerships with other grower groups, researchers and private industry. These partnerships often focus on the development of participatory research projects consisting of farmers and researchers working together to find solutions to complex problems. Networks and partnerships are also becoming more important as a way of finding and filtering information and gathering expert opinion (Colliver, 2001).

Research in agriculture suggests that learning in groups is effective for the majority of farmers (Kilpatrick et al., 2003). The Grains Research and Development Corporation (GRDC) of Australia and similar research investment bodies such as Meat and Livestock Australia, and Australian Wool Innovation are increasing their levels of investment into participatory research via farming systems groups. For example, the GRDC invests AUD6.5 million a year into farming systems projects involving 24 grower groups located across all the major Australian cropping zones (Kearns, 2006). In addition, a collaborative Australian initiative called 'Grain and Graze' almost doubles this investment. Grower groups have traditionally become involved in these funded research and development programmes through government agencies who then work with grower group collaborators to complete project milestones. However, this is rapidly changing as more grower groups take the initiative to submit funding applications as the lead organisation.

2. Grower groups in Western Australia

Grower groups in Western Australia (WA) are community-based groups of farmers who focus on production issues at a farm, local and regional level. For the purpose of this paper, the discussion is based upon independent, self-directed grower groups which are predominately comprised of broadacre grain and livestock farmers. The groups are located throughout the WA grain production zone (wheatbelt) which covers an area of more than 27 million hectares from Geraldton in the north, Merredin in the east and Esperance in the south east of the state (Fig. 1). There are currently a total of 41 formal grower groups in the wheatbelt of WA with a combined membership of over 2500 growers.

WA grower groups are generally incorporated, not-for-profit organisations which act on behalf of, and are accountable to their membership. The groups utilise the services of government agencies (e.g. Department of Agriculture and Food Western Australia) to carry out many of their production focused research and development activities. They have a range of characteristics, for example, some groups charge large membership fees (up to AUD500 per farm business), while others operate more informally. The majority of the groups aim to increase the production and profitability of their farm businesses through the adaptation of new technology while minimising the impact on their environment. Some of the key characteristics of five established grower groups are listed in Table 1. These groups are identified in Fig. 1.

2.1. Grower group case study

The following case study on the Liebe Group outlines the origin and structure of a regionally focused group in the WA wheatbelt. The Liebe group consists of 190 farming families (114 businesses) primarily from the Dalwallinu, Coorow and Perenjori Shires in the north-eastern wheatbelt. The group was established by farmers in 1997 to ensure research and development remained local, innovative and with a whole systems approach to agriculture.

The objectives of the Liebe group include: (1) to conduct agricultural research, development, implementation and validation (2) to provide information, education, skills and training opportunities to members and the wider community and (3) to strengthen communications between growers, industry and the whole community.

Some of the general activities that the Liebe group members conduct to achieve their objectives include: design and management of a large trial site, a long term research site and various satellite trial sites throughout the region addressing high priority research issues identified by members; four major annual events including a specialised women's field day; and production of monthly newsletters and an annual local research and development (R&D) book of results which is distributed to grower and agribusiness members, sponsors and other interested members of the community. The Liebe group strives to regularly identify and respond to the needs of their members through evaluation of workshops and field days, an annual member feedback and planning survey, and the inclusion of members in the annual strategic planning process.

The Liebe group is an example of a grower-driven group with a highly organised structure. The structure encourages a high level of participation from members at all levels of the group's operation, not just at the executive level. The management committee consists of 15 local farmers and 3 industry representatives that meet every month. There are five sub-committees with specific portfolios that investigate and make recommendations to the management committee.

The Liebe group currently employs four full time (Executive Officer, R&D coordinator, project officer and administration manager) and one part time staff member (sponsorship coordinator). The Liebe group is a non-profit organisation and maintains financial sustainability through grants (including funding from GRDC), corporate sponsorship, member contributions, state government, and local government. These are listed in order of decreasing importance.

A key strength of the Liebe group is their focus on the development of production systems appropriate to the local environment. Priority activities for the group are identified through surveys of farmer members, and field day and management committee discussions. The group is often forced to develop strategies to address their issues independently due to geographic isolation from expertise located in government agencies and research support units. As the group's priorities increase in complexity, greater emphasis is being placed on the development of strong relationships with key researchers and agribusiness companies to help them achieve their goals.

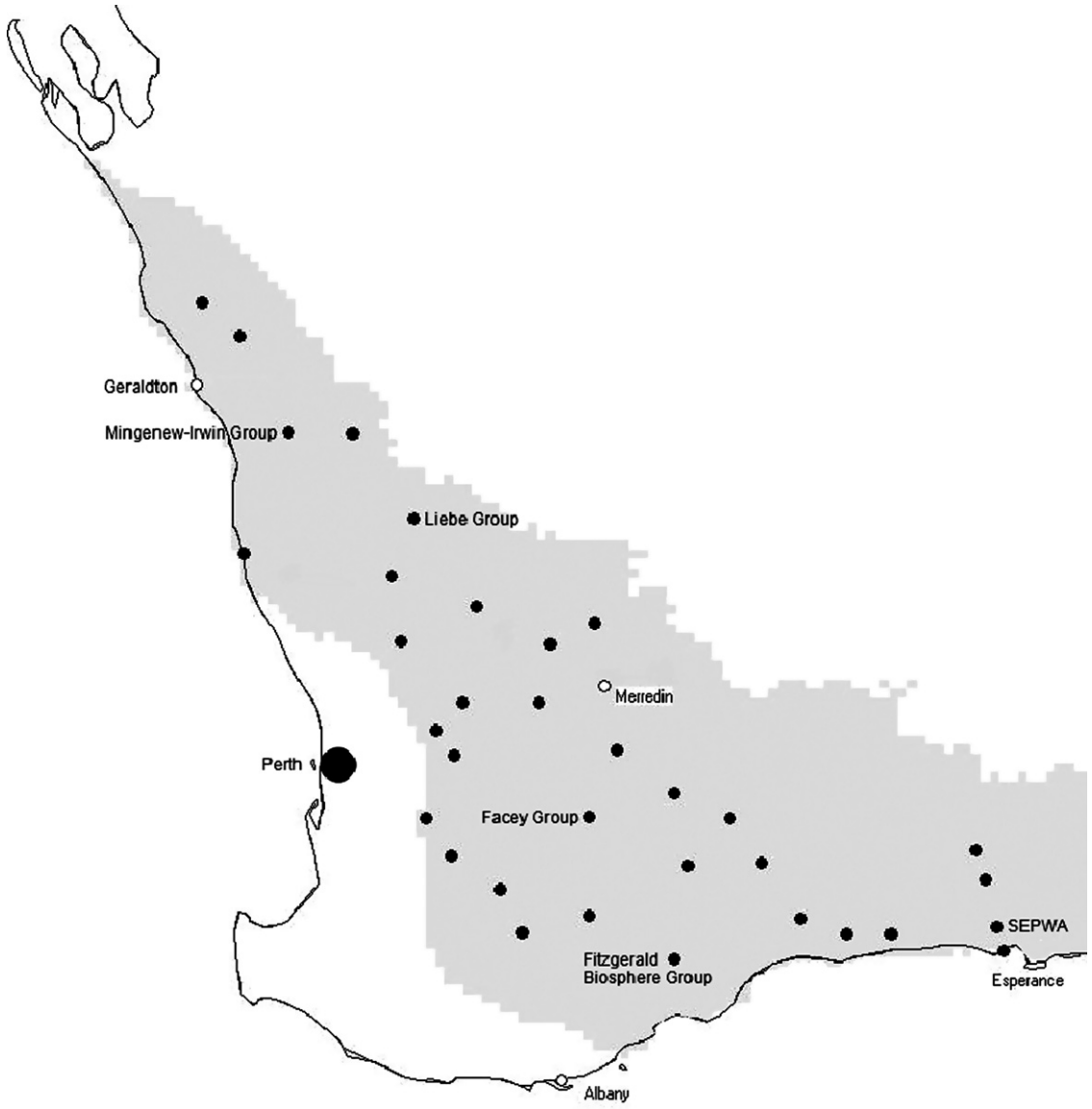

Fig. 1. Location of formal grower groups across the Western Australian grain production zone (shaded). The location of the towns of Geraldton, Albany and Esperance and the capital city, Perth, are shown along with the location of five of the grower groups discussed in the text.

3. Networks and partnerships

Partnerships between growers and researchers can be described as the 'joint development of knowledge and practices involved in managing technologies to meet industry challenges' (Nettle and Kenny, 2006). Through such partnerships, researchers learn about the local farming system and the farmers learn about the latest research. In this way, researchers and farmers use resources more effectively and build capacity. However, as the farming system increases in complexity and its problems become more challenging, existing partnerships may not be adequate and a new approach is needed. An organisational form that is designed to work in such complexity is the 'network'. According to Howden (2006, p. 4), a network is a system involving multiple nodes (individuals, agencies and organisations) with multiple linkages—not just informal patterns of interaction, but also structures through which public goods and services are planned, designed, produced and delivered.

Kelly (1995) states that the more that people are involved in an activity, the more they will accept and even take responsibility for it. A network is an excellent way to increase participation and communication. According to Colliver (2001), one thing that will produce faster evolution of sustainable farming systems is a better flow of ideas and information. There is also evidence that farmers that who are active in networks are more likely to make changes to practice (Kilpatrick et al., 2003). Thus, farmers who participate in agricultural and community organisations linked together in a network are potentially more likely to adopt innovations because, not only do they become aware of a wider variety of new practices, they also have opportunity to test and change values and attitudes.

Table 1
Characteristics of five Western Australian grower groups including area serviced, number of farm business members, and their primary objective

Group name	Area serviced (ha)	No. members (farming businesses)	Primary objective
Facey Group	797,000	75	Access and provide knowledge to members that will assist them to improve the profitability of existing enterprises while identifying and evaluating profitable additional enterprises
Fitzgerald Biosphere Group	654,000	77	Address local production and natural resource management issues to ensure long-term sustainability of the agricultural industry
Liebe Group	1,954,000	119	A progressive group working together to sustain and enhance the rural environment through a whole systems approach to agriculture
Mingenew–Irwin Group	300,000	95	Promote and develop economic and environmentally sustainable agriculture through research and demonstration of best practice
South-East Premium Wheat Growers Association (SEPWA)	5,532,000	200	Promote profitable, sustainable and quality grain production in the zone exporting grain from Esperance, Western Australia

4. Grower group networks

In the last 5 years, grower groups in Western Australia have recognised the advantages of networks and have formalised their involvement with each other. This has been catalysed through GRDC funding to develop a Grower Group Network (GGN). The network project was funded in 2002 and created the first full-time position for a coordinator of a grower group network in Australia. It was developed by grower groups and is managed by an advisory committee comprised of farmers, researchers, and private agribusiness. The aim of the project is to support groups to provide their members with access to the latest information and research, which allows them to make the best possible decisions for their farming businesses. It also provides the opportunity to establish collaborative R&D projects between grower groups across the state. By working together, it allows the groups to maintain their local focus, yet also operate with a 'critical mass' to take action on a range of issues which they would not have been able to do individually.

Grower groups within the network can be categorised depending on their focus—statewide/regional, sub-regional or local (Table 2). The separation of groups into different categories helps researchers and other potential partners identify which groups to engage in their project activities. These boundaries are not exclusive, as the size and focus of groups may change over time.

Cross membership of different groups by individual farmers is common, as they are often members of a highly active regional group as well as their small, locally focused grower group. For example, in a community such as Munginlup, 100 km west of Esperance, an individual grower can be an active member of the Oldfield Group (small, low activity group), a paying member of both the South East Premium Wheat Growers Association (high activity, regionally focused group) and the Western Australian No-Till Farmers Association (high activity, statewide focused group). The degree of cross membership is a sign of growers' desire for information to understand the complex problems they are experiencing in their farming systems and a willingness to engage at different levels.

Grower groups provide a common focus for members to network with others in the district or region. The recent phenomena of grower groups networking with other grower groups outside their region and with interstate researchers has revolutionised the way farmers view networking and its value. They now realise a network approach is useful—especially when the knowledge and resources to solve a complex problem lies with many individuals and organisations, often outside their region. A grower group network is able to create an

Table 2
Characteristics of statewide/regional, sub-regional and local grower groups in Western Australia

	Statewide/regional	Sub-regional	Local
Membership	Large (60–100 farm businesses)	Medium (30–60 farm businesses)	Small (5–30 farm businesses)
Structure	Formal management committee Specialist sub-committees Meet monthly	Formal management committee No sub-committees Meet monthly	Informal management committee No sub-committees Meet as required
No. of staff (full-time equivalent)	>1	0.5–1	None
Radius of area serviced (km)	>80	50–80	<30
No. of groups in category	9	10	22
Activities	>5 large events per year	1 large event per year	1 small event per year
Timeframe	Long-term goals	Short- to medium-term goals	Short-term goals
External funding	>1 major external industry or government partner	Looking to engage major external partner	None directly or looking to engage external partner
Research and demonstrations	Conduct own programme	Partner in collaborative projects	Partner in collaborative projects

environment where shared understanding and/or collective action is used to achieve outcomes in the face of conflicting goals, or where there are several approaches to achieving a solution. These networks may be initiated by the research organisation, or more recently, by grower groups.

5. Grower groups as research partners

Grower groups perform many roles in rural areas. Examples of these include: identification of important local issues for investigation; exchange of technical information between members; provision of feedback on new technologies to researchers; and creation of opportunities for social interaction. In addition, a key characteristic of successful grower-driven groups is their ability to build constructive partnerships (Campbell, 1992). These partnerships are generally formed with researchers to enable groups to progress their locally driven R&D programs. In fact, the formation of many grower groups was initiated by the perceived need to attract more R&D to their local region.

Grower groups have been very successful in trialing and promoting technologies that have come from a previous strong research base (Ridley, 2005). Where there is an issue in the local area which has not previously been investigated, groups look for research partners with suitable expertise to help them examine the problem in further detail. Most grower groups understand that they are not research providers and recognise that they cannot have hands-on involvement in all types of research, such as basic scientific research. To date, grower group involvement in the research process can usually be classified into three levels that are outlined in Table 3.

5.1. Case study of a grower-group-led project utilising networks

The Western Australian No-Till Farming Association's (WANTFA) conservation farming project is an excellent example of co-development and leadership of research by a grower group with its industry collaborators. The objective of the project is to improve the quality of no-tillage by determining the long-term impact of permanent soil cover on soil organic matter and crop production. This will be achieved by comparing four cropping systems, each with different 'philosophies' in regards to the management of soil cover, crop selection and tillage technique.

In late 2005, WANTFA consulted extensively with its 1400 members and engaged diverse industry partners to design a project to take no-tillage to the 'next level'. The complexity of designing a new conservation farming system and paucity of experience in Australia led them to assemble a multidisciplinary team of scientists, industry and farmers. Collaboration with grower groups occurred through existing local and nationwide farmers organisations. Australian scientists from the Department of Agriculture and Food WA (DAFWA), University of Western Australia, Curtin University and CSIRO were invited to participate. Expertise from South and North America was also solicited. Industry collaborators included fertiliser, chemical and soil testing companies together with R&D corporations.

The new conservation farming systems need to be applicable for a range of climatic and soil conditions. As a result, two long-term (to remain for at least 10 years) field testing locations have been selected—the WANTFA main trial site (medium rainfall, medium soil type) and a Mingenew–Irwin Group trial site

Table 3
Three current levels of grower group involvement in the research process: (1) identification and supply of field sites; (2) roles within a larger project and (3) co-development and leadership of research initiatives

	Identification and supply of field sites	Roles within a larger project	Co-development and leadership of research initiatives
Process	Researcher describes field site needs	Grower groups complete one part of a larger project	Grower groups and research providers develop and implement a new project together
	Individual group members volunteer to provide sites		Project idea initiated by either farmers or researchers
	Research liaises directly with host farmer		Idea developed in partnership before funding application is submitted
Example	Selection of trial sites for testing of a new crop variety	Surveying members or running 'focus groups' for farmer input into a project. Organisation of extension events	WA No-Till Farming Association Conservation Farming Project (see case study below)
Grower benefits	More applicable research results as trials are conducted in their local area	Grower group partners formally written into the project and its budget	Increased relevance of research completed in local area
	Development of relationships with research providers	Recognition at a statewide or national scale	Greater benefits to members.
		Improved negotiation and project management skills	Genuine ownership of the project outcomes by farmers
			Improved capacity for project management and leadership
Researcher benefits	Reduced time for site selection	Wider extension of results and better acceptance of research outcomes	Defined roles to build on each partner's strengths
	Increased opportunities to communicate with growers through group newsletters, trial results books and presentations		Farmer involvement often provides credibility for research

(medium rainfall, light soil type). In July 2006, 18 months after the project idea was initiated, WANTFA and its partners secured 3 years of funding from the GRDC and began to establish the field sites.

5.1.1. Case study discussion

The WANTFA project has been very successful because it was based on a need identified by local farmers. Through consultation with international and interstate experts, WANTFA and its research partners developed the project aims and activities. The outcomes will be delivered not only to WANTFA members but also to other farmers across the state and country. The project has allowed farmers to become 'active generators of new knowledge applicable to their local context' (Andrew et al., 2005, p. 43).

The project operates within the framework of a 'group facilitation-empowerment' model as described by Coutts et al. (2005). The philosophy of this model is that rural industry participants are best served by allowing them to define their own problems and opportunities, and seek their own avenues to address them. It is 'based on a pragmatic understanding that it is the people in a specific situation that are best able to understand and act on the issues directly concerning them' (Coutts et al., 2005, p. 34). In addition, the 'network' approach used by WANTFA was able to bring together diverse groups with a range of knowledge to consider a problem from many angles. It was also effective in applying for project grants as the 'inclusion of multiple interests (e.g. service providers and end-users) is increasingly sought by funding providers' (Howden, 2006, p. 6).

A major strength of this project is its structure which allows the active involvement of individual farmers, grower groups and grower group networks in the research work. In terms of individual farmers, there will be four local farmer 'champions' involved at each research site. Together, they are responsible for overseeing the management decisions of the cropping system treatments being trialled (e.g. high residue with permanent cover versus current district practice).

The project encourages participation by grower groups through the establishment of a research site with a regionally focused group—the Mingenew–Irwin Group (MIG). This group was selected through its involvement in the WA Grower Group Network. In conjunction with the project steering committee, the MIG is responsible for site selection, identification of farmer 'champions', in-season monitoring and extension of project results. It is an equal partner in the project and is allocated funding from the project budget to run the research site and associated extension activities. In the future, it is intended that a number of satellite sites near the WANTFA and MIG trial sites will be established to ensure the research is accessible to an increased number of farmers.

The successful development and implementation of this project was due in part to WANTFA's participation in two distinct grower group networks. These were the WA Grower Group Network and a nationwide network called the Conservation Agriculture Alliance of Australia and New Zealand (CAAANZ). CAAANZ is comprised of seven conservation farming organisations located throughout Australia and New Zealand. It aims to improve the sharing of information about the benefits and practicalities of conservation farming and to encourage further adoption of conservation farming practices in Australia and NZ. Through the two grower group networks, WANTFA is able to distribute the results of its research to over 4000 farmers. It is also able to collect feedback on the project's current activities and gain new input from farmers as it progresses. Information is shared across the networks through grower group newsletters and websites, field days at the research sites, annual conferences, and study tours for farmers to visit other network groups.

WANTFA's influence is not only limited to grower group networks. The group has a strong track record of collaboration and has developed partnerships with many other organisations that can offer knowledge, skills and resources to the project. These include government departments of agriculture, universities, agronomists, consultants and other industry service providers. Examples of contributions from these partners include representation on the project management committee, scientific review of the proposed experimental methodology and in-kind and cash contributions from industry partners. An additional two researchers have indicated that they would be seeking funds to develop linked projects. The industry partners have an important role in the extension of the research results to fellow industry members and farmer clients.

6. Grower groups provide a ready audience for extension of research results

Grower groups and their networks are not only effective research partners in a complex system but are also a very effective means of delivering research outcomes. Networks of grower groups can provide researchers with opportunities for greater impact, well beyond partnerships with one or two grower groups. An example of this is illustrated by the following case study.

6.1. Case study: delivery of sub-soil constraints workshops through grower groups

In 2005, researchers from the Managing Hostile Subsoils research team at the University of Western Australia and DAFWA utilised the WA Grower Group Network to promote and deliver information on sub-soil constraints. The information was packaged into a half-day workshop format to assist growers to identify soil physical and chemical constraints to crop root growth in their own environment, for example sub-soil acidity or compaction. Grower groups were required to provide three soil pits representing the main soil types in their region for the researchers to examine and characterise during the workshop.

The grower group network coordinators were able to help the research team add value to their workshop series in a number of ways. These included: tailoring of workshop content to ensure relevance to farmers; appropriate promotion of the workshops and adequate lead time (8 weeks) for the grower groups to consult with their members about their interest; use of an 'Expression of Interest' template to define roles and responsibilities of both researchers and grower groups;

encouragement of grower group responses; construction of a workshop timetable through advice as to the most suitable times during the growing season to hold the workshops; and coordination of feedback from the groups to the researchers and vice versa. By the end of the growing season, the research team had visited 15 grower groups throughout the wheatbelt, and engaged over 300 farmers and 70 agribusiness personnel. The impact of the workshops continues to be felt across the state. For example, as a direct result of the workshops in 2005, a locally focused grower group uncovered large sub-soil constraints. They have now obtained funding to investigate amelioration options for the problem in the following season.

6.1.1. Case study discussion

In the sub-soil constraints case study, the research team were able to achieve far greater outcomes for their project by interacting with a network of grower groups.

Firstly, the packaging of information in a workshop format enabled new knowledge and skills to be delivered to groups of farmers rather than on an individual basis. Through the grower group network, researchers were able to access many grower groups simultaneously and therefore a much greater number of farmers. Once the workshops were delivered, grower groups used their own networks to extend the outcomes of the workshops to a much wider audience than just those who attended the day. Information was shared through field days and visits between neighbouring grower groups. Many new ideas were generated as groups from various parts of the grain production zone approached the common problem of sub-soil constraints from different perspectives.

Secondly, the use of the network coordinators to tailor the workshop content increased the relevance of the topics to farmers. When farmers are surveyed about extension, one of their most important concerns is a lack of practicality of the advice being provided (Vanclay and Lawrence, 1995). The customisation of content before it was presented to the farmers tried to avoid this problem. In addition, flexibility was built into the program for farmer participants to use their own knowledge of the landscapes, farming practices and local climate to determine the problems that affected them and find solutions. Members of grower groups are able to integrate data into a systems perspective that a specialist scientist may not be able to do. This adds a multiplier effect for practice change and the implementation of new research.

Lastly, the location of grower groups across the state meant the researchers had to travel widely. Using their local knowledge, the network coordinators facilitated the researchers' ability to talk to farmers in-person in their local area. This increased the researchers' credibility and potentially their ability to influence farmer practices in the future.

7. Grower group network forums: encouraging grower and researcher interaction

The Grower Group Network creates opportunities for researchers to engage with grower group members of the network. This is achieved is through the organisation of targeted events, and the development of a simple tool called the 'Expression of Interest' process. These are described below.

7.1. Grower and researcher annual forum

The Grower Group Network organises a 1 day forum each year in August. Participants include grower group committee members and staff and scientists from eight WA-based research institutions. Funding partners, consultants and representatives from agribusiness, banking and fertiliser companies also attend in recognition of the increasingly important role they play as partners in research projects. In 2006, regional natural resource management (NRM) organisations were involved for the first time. Between 60–80 invitees attend each year.

The aims of the GGN forum have remained unchanged over the 5 years of the project. These are to: (1) identify ways to improve communication within the grower group network to deliver better information to its members; (2) establish collaborative partnerships between grower groups, researchers and industry partners.

Each year, a unique focus for the event is developed by the GGN project management team. This team consists of a grower group executive officer, DAFWA staff member, CSIRO researcher, a consultant and the GGN coordinator. The diversity of the team ensures the development of a program which caters for all participants. Previous forums have: compiled grower group priorities for research; identified research gaps in regards to soil health, livestock, and cropping pests and diseases; and explored the communication networks used to share information between grower groups and researchers.

In 2006, the forum explored the question 'What are the benefits and constraints of grower groups, research organisations and industry working together?' A summary of the key benefits and constraints are listed in Table 4.

The second question asked at the forum was 'What do we need to do to build strong working relationships between

Table 4
The key benefits and constraints of grower groups, research organisations and industry working together

Benefits
Greater access to target audience through increased exposure to grower group members
Improved information flow and feedback between all partners
Ensures the research is relevant to growers and the local farming system
More efficient use and sharing of resources
Builds trust and ownership between partners to accelerate adoption
Increased networking opportunities and sharing of ideas
Constraints
Research environment is constrained by rules, regulations and reporting
Ownership of knowledge in collaborative projects
Poor communication between partners
Recognising different levels of rigour in research (trials vs. demonstrations)
Scarce amount of time and resources for all partners
Complexity in transaction costs make it difficult to meet stakeholders needs

grower groups and their industry partners?' Suggestions included: increase awareness by industry of the conditions on-farm today; encourage open communication between all parties with a common language; resource the planning phase for new projects; formalise partnership arrangements to meet expectations; understand the interests/strengths/core objectives of partners; and make it fun, enjoyable and interesting.

A strength of the annual forum is its interactive format. A range of facilitative methods, such as small group discussions and brainstorming, are used to explore focus questions. All activities aim to provide opportunities for participants to interact, share ideas and expand their personal networks. In 2005, 85% of participants rated the 'quality of interaction' at the forum a score of 8 or more out of 10 (Gianatti, 2005). The forum has also catalysed the formation of new research projects. Since 2004, as a direct result of contacts made at the forum, five new collaborative projects have been initiated between grower groups and researchers and funded by R&D corporations.

7.2. Regional group leader meetings

Locally focused grower groups required interaction with industry partners in a more informal manner. This occurred in the form of breakfast meetings held in five regional centres throughout the state. Industry partners were invited to meet farmers in their local community, rather than everyone travelling to one central location. A breakfast timeslot meant that farmers were able to attend with minimal interruptions to their working day.

The aim of the meetings was to share opportunities and strengthen relationships between locally focused groups and regionally focused grower groups located in the district (100–150 km radius). Representatives from the DAFWA, regional NRM organisations, regional development commissions and the GRDC were also invited. Meetings had a limit of 10 participants to ensure good personal relationships were established.

The most striking observation from these meetings was that many of the group representatives had not met each other before. In addition, both the regional development commissions and the NRM organisations were meeting with the groups for the first time—and in some cases, even with each other. Participants liked the small meetings as they encouraged efficiency and were able to maintain focus. The attendance of the larger regional groups was beneficial as it gave the local groups a chance to hear about their activities and discover they had many issues in common. WANTFA was represented at all the meetings which provided insights from a statewide group. A key learning from the meetings was that participants need to be invited from groups with similar farming systems. Also, consultation with participants before the meetings to establish an agreed focus topic would improve discussions.

7.3. 'Expression of interest' process

A simple tool developed for researchers to easily engage with the grower group network is the 'Expression of Interest' (EOI) process. The EOI process gives researchers and other potential grower group partners (e.g. agribusiness) a simple way to outline upcoming research projects, trials or workshop opportunities they wish to offer to grower groups. On one A4 page, the resources/skills the researcher partner can offer, and the expectations of the grower group (provision of sites, extension opportunities, etc.) are outlined. The completed template is emailed directly to all grower groups, and promoted on the grower group network website and newsletters. Over a 12-month period, 36 EOI's were distributed through the grower group network and over 70% were acted upon by the groups.

The EOI process is not new, but it is the first time it has been applied to a network of grower groups. The main advantage of the process is that it enables researchers to efficiently identify potential partners for their research projects and allows for an equitable distribution of opportunities to grower groups. Previously, researchers generally contacted groups they knew or had worked with before. The use of the EOI process now

Table 5
Summary of future challenges for grower group networks based on Gianatti (2006)

Challenge	Description
Balancing individual group aims with network aims	Grower groups must deliver benefits to their members through their activities. Membership of the grower group networks requires effort and does not guarantee that individual groups will see a direct benefit. Grower groups may be less willing to share ideas with the GGN and keep ideas for themselves as available funding declines.
Future funding	A key issue for grower group network projects. Without funding to employ the network coordinators, many of the combined activities may cease to exist. The motivation to organise activities for the benefit of all member groups could disappear. Networks need strategies to secure their future in a world of shrinking budgets and funding.
Clear roles and responsibilities	Clarification and communication of each partner's role is essential in a collaborative project. The EOI process can be used to establish roles and responsibilities at the beginning of a project. Feedback between researchers, host farmers and the grower group is important to identify any issues and allow for their timely resolution
Limits on farmer member time	This is the greatest restriction on farmer involvement in grower group and network activities. Research partners need to be aware that farming is a full-time business and time constraints are increasing, particularly as farm size increases and labour availability declines. 'Burn out' of group leaders is also a challenge and better succession planning for grower group committees is required
Measuring the impact of information delivered through grower group networks	Evaluation and attribution of changes in farmer practices to a grower group network is difficult. Farmers receive information from multiple sources, any of which could trigger practice change. The benefits of the network must be demonstrated to member groups and partners to ensure continued participation in statewide initiatives

allows small, low profile groups (and new groups) to have similar opportunities to the larger, more established groups. An additional benefit for researchers is that it creates a greater awareness of their research projects amongst the farming community.

8. Challenges for grower group networks

Using the concepts presented by Gianatti (2006), the future challenges for grower group networks are summarised in Table 5.

9. Conclusion

The development of grower group networks is part of a unique and evolving form of farming systems research in Australia. The organisation of grower groups into networks has made them more accessible and relevant to researchers.

Understanding what networks and their affiliated partnerships can and cannot do is critical. Through the establishment of grower group networks, researchers are now able to: access grower groups with the capacity and willingness to engage as research partners; identify new collaborative research partners (grower groups and agribusiness); consult with growers to identify and refine R&D ideas; gain feedback on the relevance of their work from growers; and increase the impact of their extension activities by delivering results through grower groups. Clever use of grower group networks by researchers through participation in grower group forums and other initiatives creates opportunities for future collaboration.

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