

## Agriculture extension through grower groups – a focus of Grain and Graze 2

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**Abstract.** Grower groups such as the Facey Group and Southern DIRT are becoming widely recognised by industry as key partners for the delivery of key research and extension activities. This paper outlines the benefits for successful project delivery through grower groups and details the Grain and Graze 2 (GG2) project in Western Australia as a case study. The strength of these community based groups derives from their strong networks across all sectors of the agricultural industry, which allows for the key learnings from the GG2 project to be disseminated through a wide network including their farmer membership, agribusiness, government agencies and the research sector, which also allows for effective multi-way communication through the entire industry. They combine on farm demonstrations and research with traditional extension methods such as field days and workshops and are trusted information sources within their areas and the wider industry. These groups have the capacity to assist tertiary, state and federal research organisations or private companies with research requirements to not only deliver their research goals but to extend the knowledge gained from the research activities to a critical mass.

**Keywords:** on farm demonstrations, research learnings, agricultural communication.

In early agricultural Research, Development and Extension (RD&E) environments, growers were often considered to be the 'subjects' (van de Fliert and Braun 2002) or the passive stakeholders of the farming system that was under consideration. In more recent times, the evolution of the grower driven group involved in the RD&E space has encouraged and facilitated farmers relevancy and importance in the participatory research process.

Since the 'Decade of Landcare' initiative which began in the early 1990's, there has been a rapid evolution of community-based groups in the natural resource and the sustainable agriculture industries in Western Australia. This coincided with a period of review and restructuring by the state Department of Agriculture and Food WA (DAFWA) in the mid 1990's that saw a shift away from the traditional, publically funded extension services that were being provided (Marsh and Pannell 2002). This restructure saw grower driven groups establishing to fill the perceived void in the research and extension space and provide a forum for growers to have a more influential role in the research environment. Growers wanted greater control over the information they required for their businesses and they wanted to change the delivery method of the extension information (Gianatti and Carmody 2006). These groups were formed to enable growers to get together and challenge current on-farm practices and trial new production techniques in local conditions and environments as well as disseminate relevant information and extension messages through its networks.

In Western Australia (WA) the grower group network is active with 41 formal groups all involved in varying degrees in farming systems research, development and extension. Their important role is recognised by the leading agricultural research corporations such as the Grains Research and Development Corporation (GRDC), Meat and Livestock Australia (MLA) and Commonwealth Scientific and Industrial Research Organisation (CSIRO). In 2006 Stuart Kearns, GRDC Manager Validation and Adoption, stated that grower groups demonstrate their value by creating relevant and useful networks to develop solutions for local, regional and industry wide issues. The GRDC recognises the role that grower groups play in farming systems research, investing A\$6.5 million per year into systems projects across twenty-four grower groups and between 1996 and 2006, 70 individual projects were funded (Kearns 2006).

The key to the longevity and success of the WA grower groups as discussed by Gianatti and Llewellyn (2003) was that these groups needed to take responsibility for planning for their locally focussed activities. Their relevancy required the involvement of partners who were able to apply local knowledge and utilise networks to advocate issues at a regional or industry level. The ability to trial new technologies in local conditions and local systems ensured relevancy to its members and the group environment assists its members to support each other to adapt to the rate of change in agriculture industry. These groups provide a common focus for growers to network with each other and with industry partners allowing for the ownership of information extended and knowledge created.

While the specific activities of each of the individual groups vary, these groups are an important system for adult learning and encourage a participatory approach to research and extension (Gianatti and Carmody 2006). The greater the input that growers have into Research,

Development and Extension (RD&E) planning as discussed by van der Fliert and Braun (2002), the greater the impact of the outputs on the intended end users of the information, who of course are the growers. Research in this area suggests that learning in groups is an effective mechanism for most farmers and there is also evidence to suggest a multi stakeholder research and extension environment allows for more success in the achievement in the adoption of the technology or practice being tested (Kilpatrick et al. 2003). Supportive research by Kearns (2006) demonstrated the importance of growers in the RD&E process with projects initiated and delivered through grower groups 'resulting in financial, social and environmental benefits due to ownership of the work, participation in groups and the adoption of research findings'.

This paper will demonstrate the success of two established grower groups in WA, the Facey Group and Southern DIRT to deliver on a national program – the Grain and Graze 2 project and achieve greater impact of the projects trial and extension outcomes.

### **Grower Group partnerships and networks**

A significant factor contributing to the success of these two grower groups that will be discussed is their ability to deliver information and research outcomes to a wider industry audience. Most of the groups being discussed in this paper have developed strong ties with private agronomists/consultants; marketing boards; Department of Agriculture and Food WA (DAFWA); CSIRO and other cooperative research organisations; tertiary institutions; seed, fertiliser and chemical companies and research and development corporations. This partnership between public and private stakeholders is the current and desired extension environment in Western Australia (Marsh and Pannell 2002). Grower groups actively pursue partnerships with other farmer groups and the stakeholders to not only increase the impact of their extension messages but to add vigour and value to the whole research process.

In current times, locally based farming/grower groups are now facilitating the RD&E process, identifying their knowledge and/ or capacity gaps and successfully engaging the stakeholders and resources required to assist in solving the problem. Through such partnerships and networks, researchers are encouraged to increase their knowledge of the local farming system and research and extension messages can be tailored for a mutually beneficial outcome. Gianatti and Carmody (2006) demonstrated that a grower group network encourages an environment where 'shared understanding and/ or collective action is used to achieve outcomes in the face of conflicting goals'

Grower groups develop relationships with their research partners and networks over periods of time where a level of trust and understanding of shared common goals are reached. Some of the Facey Group's partners have been involved with the group since its inception 12 years ago. The process of having the researchers on board and the grower group involved early in the RD&E planning is a move away from the 'top down' chain from researchers to farmers allowing all the stakeholders to be equally involved. As Gianatti and Carmody (2007) outlined – grower group partnerships with the agricultural science community has allowed for the filtering of information to growers for a more effective adoption of the messages presented. The differences in thinking between scientists and growers can be quite extensive with growers in many cases considering the 'whole farm' holistic impacts of the research issue whereas the researchers are focussed on the specific testable hypotheses. These issues are often overcome with the encouragement of effective partnerships between the stakeholders each working towards a common goal.

The advantages of strong networks in RD&E cannot be better demonstrated than with the formation of the Grower Group Alliance (GGA). A number of established groups recognised that improved extension and the desired adoption of agricultural research messages in WA was a priority. As discussed by Kearns (2006) and Gianatti and Carmody (2007) the communication of new technologies and innovations needed to be improved so that relevant research messages could reach the end user in an effective manner. The response to this issue was for grower groups to partner with research institutions to establish the GGA which was funded by the GRDC and a coordinator was employed. The GGA aims are/were to improve and facilitate communication between farmers, researchers and industry and the encouragement of collaborative projects (Gianatti and Llewellyn 2003). The GGA provides a platform for its member groups to disseminate their research messages beyond their local networks adding value to projects they have an extension role in.

### **Facey Group**

The Facey Group is a farmer run group that aims to improve on-farm practice to keep farms, farmers and their communities efficient, healthy, profitable and resourceful into the future. It aims to bring the community together to work towards achieving economic, social and

environmental sustainability for broad acre farms within the region. The Facey Group was formed in Wickepin, 214 km south east of Perth, Western Australia, in 2001 from an existing Landcare group. The group's 2012 membership which is comprised of 94 farming entities, 5 associate members and 18 corporate partners equates to approximately 350 individual members. Members live not only in the Wickepin shire but the surrounding shires of Cuballing, Narrogin, Brookton, Pingelly, Corrigin, Kulin, Williams and Dumbleyung. The Facey Group is an innovative, highly motivated, organised and well-resourced grower group with a strong focus in this region.

The Facey Group's key function is to service its farming members. Its strategic plan states that the group will strive to *'source and disseminate new ideas and information to members from industry and researchers'* and *'supply learning opportunities'*. The Facey Group aims to achieve these goals by:

- Providing innovative trials and information to members, business improvement and professional development to members,
- Conducting field trials,
- Supplying and driving industry forums, meetings, workshops,
- Using media to maximum advantage,
- Demonstrating leadership in farming systems and community
- Providing professional development opportunities
- Regularly consulting members to identify their needs, reviewing all projects and activities to ensure relevance,
- Allowing more networking opportunities for members, sponsors and partners,
- Developing relationships with corporate and government sponsors and partners,
- Working in partnership with others on projects, events and trials.

The group identifies and prioritises issues requiring investigation on an ongoing basis and then decides how to address the issues, taking into consideration the available skills and resources of the group and its networks. This is achieved through the group's four specialty sub-groups: Cropping, Sheep and Pasture, Women In Agriculture and Natural Resource Management. Each of these sub-groups works within the Facey Group. Decisions and plans are made in reference to the key aims and criterion of the group as a whole and in reference to the strategic plan of each of the sub-groups.

Industry professionals from both the public and private sectors involved in agribusiness and RD&E take an active role with the Facey Group in varying degrees. Researchers sit on the sub-groups depending on interest area and skills and agribusiness professionals sit on the farmer driven general board based on skills required by the group. The management board is comprised of 12 growers who are elected by the membership, four industry representatives and the corporate partner group. The group employs three full time staff members, an Executive Officer, Research Agronomist and Administration Manager and a part time Media and Marketing Manager. The Facey Group is also a founding and currently active member of the Grower Group Alliance which extends its network of communication and influence state and nationwide.

### **Southern DIRT**

Southern DIRT was incorporated in 2010 and aims to develop relevant and innovative information products aimed at improved profitability and benefits for members in the high rainfall zone in the southern region of WA.

Southern DIRT currently has 70 businesses as members and 15 associate members (groups expanding out to further hundreds of their own members). Membership is steadily growing across the region. These originate from Mt Barker to Williams; Boyup Brook and Manjimup across to Katanning. Fifteen shires are represented across the membership base.

Southern DIRT has networks with the grower groups and NRM groups across WA, as well as extensive networks across private enterprise and government agencies through sponsors and industry representatives Australia wide. The Southern DIRT Board have extensive networks which are also utilised to both extend and source information.

Southern DIRT is governed by a Board (currently nine members) of experienced industry personnel from within and outside the Southern DIRT region. Board members are elected for two-year terms and are eligible for re-election. The Board meets every two months, however members are regularly updated on the group's activities. The Board determines the direction of the group, according to the Strategic Plan.

The Southern DIRT board has key portfolios to ensure that the growth opportunities of the group continue to be developed. Each Board member will accept joint responsibility for one or more portfolios:

- Strategic planning
- Sponsors/industry/corporate partners representative
- Human resources/support staff
- Research, Development and Extension
- Financial management
- Policy and corporate governance
- Marketing/brand/membership management.

Board members are involved in strategic decision making processes. Decisions are made using the strategic plan as a guide.

Research priorities are determined predominantly by the R, D& E Committee together with the Project Officer. Regular requests are made of members to outline their issues and knowledge gaps to assist with R, D& E priorities.

### **Grain and Graze 2**

Grain and Graze 2 (GG2) is a program operating in seven regions across the mixed farming zone or wheat/sheep belt of Australia and is engaging with farmers and advisers through farm research activities, demonstration trials, field days, workshops and publications. Grain and Graze 2 is coordinated by the Grains Research and Development Corporation and is partly funded by GRDC and the Australian Government's *Caring for our Country* initiative. The partners have invested a combined A\$12 million into the program over four years supported by farmer levies and matched by the Australian Government. Funding and support from regional project partners including state departments and farming systems groups has boosted the total program investment to A\$25 million.

GG2 is aimed at strengthening the resilience of mixed farming businesses across Australia by helping farmers to understand complex systems, adapt to market risks and seasonal changes and to make informed decisions to optimise grain yield and livestock productivity while protecting the environment. The Western Australian component of GG2 (GG2 WA) has targeted locally relevant issues with the longer-term goal of increasing in water use efficiency in mixed crop/livestock systems that improves whole-farm profitability, whole-farm sustainability and whole farm ground cover, by accelerating the adoption of specific key management practices and technologies.

The GG2 WA project utilised grower groups for hosting and managing research trial work and communicating extension messages along with facilitating the dissemination of project publications. In the case of GG2 WA the grower groups were not the scientific research providers but were able to value add to the desired outcomes of the project and their involvement can also provide a degree of impartiality (Gianatti and Carmody 2007). In addition to this the Facey Group was identified as having the capacity and skills to be the lead organisation of the project administering the funds and managing the administration processes of the project.

The GG2 WA project was developed with the direct input by growers representing the priorities of the groups they represent not only in the planning of the state-wide project but in an ongoing capacity with representatives from grower groups sitting on the Advisory Committee of the project. The specific contracted roles of Southern DIRT and Facey Group within the GG2 WA centred around the testing of the technologies on a farmer scale demonstrations that were identified by the project team and to provide means of delivering extension messages:

- Demonstration sites – both groups sourced appropriate sites and participating growers through their membership base. Participants were required to have field sites appropriate for field days and the appropriate machinery required to deliver the demonstrations. Both these groups stressed the importance of finding a grower open and prepared for the research process. This was managed by the Facey Group through an Expression of Interest process which clarified expectations of the researcher and the host farmer and outlined the trial protocols. This encouraged growers to host research that is of interest to them and they were well informed of the commitment required. They were also encouraged to have a certain amount of ownership over the research as they were involved in the process from the outset. In many cases the researcher liaised directly with the host grower and vice versa during the site set up and this supported the desire of these groups to support their growers input into their own research priorities. Many of the

technologies tested in the GG2 project had already had the science behind them tested, but what was required was the ability to see these innovations on a paddock scale and using standard grower equipment and to provide a forum to discuss the whole farm implications. Grower group staff were also contracted by the project to conduct in season monitoring, collect data and trial observations.

- Delivery of extension messages – Through the use of these demonstration sites the GG2 WA project had a platform to disseminate its outcomes. Facey Group and Southern DIRT both hosted field walks and research presentation events where these demonstration sites were discussed and presented in written form. The researchers involved and the project team were provided with opportunities to communicate directly with farmers and discuss the implications of their research. Both groups produce research publications for reference at field walks and then at the end of the growing season the final results of the work were presented. Using grower groups in this extension capacity meant that the process was well organised and delivered and the grower groups involved used their expansive networks for a wider extension of results allowing for better acceptance of messages. Both groups communicated their research information through the GGA which linked them to other groups, both state and nationally, along with the wider agricultural industry. The Grower Groups drove the extension activities and designed events that were best suited to their membership for maximum impact.

## Conclusion

The development of well-resourced and professional grower groups in Western Australia has changed the environment of RD&E in farming systems and the passages of communication of these outcomes have been vastly improved and expanded. The desire for these groups to actively seek partners and networks to support their priorities has allowed for greater multi stakeholder involvement and thus a greater impact of research and extension messages is being achieved. These networks have been recognised by all stakeholders in the industry including research corporations, state departments and tertiary institutions, although perhaps the most important partnerships are the ones between each of the grower groups.

The GG2 WA project recognised the important role that grower groups play by contracting the technical and communication facets of the project to these groups with an aim of increasing the impact of the extension activities. By researchers and growers working together to implement and manage a project such as this has ensured that knowledge and resources better address local issues facilitates the promotion of the outcomes outside of grower group region.

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