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CRITICAL SUCCESS AND FAILURE FACTORS OF A NEW EXTENSION APPROACH TO ACHIEVE INCREASED CAPACITY OF BEEF PRODUCERS AND IMPROVED BEEF ENTERPRISE PROFIT AND SUSTAINABILITY

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ABSTRACT

The Research to Reality Project (R2R) was developed to assist producers to develop practical responses to a range of production and natural resource challenges. Located in the Burdekin catchment of North Queensland, the project involved three beef producer teams encompassing 19 businesses, 680,000 ha of land and the management of 162,000 cattle. Funding and support for the project was provided by the Burdekin Dry Tropics Natural Resource Management, the Department of Primary Industries & Fisheries, and the Beef Cooperative Research Centre Beef Profit Partnerships Project. The project was designed and delivered by a multi-disciplinary team of staff from the Department of Primary Industries & Fisheries.

The project foundations lie in continuous improvement and innovation, with the project teams using a range of extension methods to identify, develop and implement on property research projects. Extension methods include one-on-one property planning activities, economic benchmarking, land condition assessments, on-property demonstration sites, field days, information products and where required, structured learning workshops. An industry representative also acts as project champion.

This paper focuses on the extension approaches that have been used, specifically what has worked and ideas for doing things differently.

INTRODUCTION

Approximately 90% of the Burdekin Catchment area is utilised for extensive cattle grazing (McCullough and Musso, 2004). There are about 500 commercial grazing enterprises that range in size between 10,000 and 50,000 hectares and run 2000 to 5000 head of cattle. More than 70% of the grazing properties are family operated (McCullough and Musso, 2004). Managing for climate and market variability is a challenge to the sustainability and profitability of grazing enterprises within the catchment. Land degradation has attracted attention to the area since the mid 1980s and continues to today. There is wide-spread concern that increased loads of pollutants in our waterways, such as sediment and nutrient, may negatively affect the estuaries and in-shore reefs of the Great Barrier Reef lagoon. Maintaining enterprise profitability in light of declining terms of trade requires producers to continue to make significant gains in animal production and grazing land management. Production gains can be achieved by maximising animal turnoff age, targeting turnoff into the high value parts of the price grid, improving breeder performance and calf-output and developing more efficient herds through genetic improvement, the use of crossbreeding systems for heterosis. Gains through grazing land management can be made by improving land condition and pasture quality, undertaking property development such as waters and fencing, and managing pest and weed infestations.

Historically, all of these challenges have been approached by research, development and extension as discrete items rather than within a whole of business context. Moreover, service providers have assumed that technology outputs from research could be directly transferred into a grazing enterprise without prior modification and trial. Despite general acceptance that the 'technology transfer' paradigm does not lead to accelerated adoption and that service providers should not work in silos, there are few examples of a whole of business integrated approach focused on adoption and capacity building outcomes. Central to the Research to Reality Project is the application of a range of

extension processes to analyse the whole business and build the capacity of producers to adopt practical solutions to production and natural resource challenges.

The Research to Reality Project involved three beef producer teams from the Collinsville, Belyando and Northern Speargrass (Greenvale) areas encompassing 19 businesses, 680,000 ha of land and the management of 162,000 large stock units. The project effectively ran for two years (2006-2008) by a multi-disciplinary team of Department of Primary Industries & Fisheries (DPI&F) staff mostly based in Charters Towers. Principle funding was sourced from the Burdekin Dry Topics Natural Resource Management and the DPI&F.

The predominant extension model used was the group empowerment and facilitation model. This model was integrated with other relevant extension models including the consultant/mentor and technology development/problem solving model. To a lesser extent, the programmed learning/training and information access models were also used. These models were enhanced through the embedding of the continuous improvement and innovation process (C, I& I). The C, I&I process and an integrated training program was developed in Queensland by Clark and Timms from international and Australian research and adapted for rural Australia (Clark and Timms, 2000). "C, I&I uses a modified form of soft systems thinking to address issues of innovation and change" (Roberts and Paine, pp3, 2004). The Beef CRC's Beef Profit Partnerships Project also uses the C, I&I, process and with mutual outcomes sought, a partnership between the two projects was developed.

WHAT WORKED?

The success of Research to Reality begins with its design. A system map was created that embedded the C, I& I process into the project framework. This C, I& I process encourages producers to apply the process and its' support tools to ensure decision making is focused, objective and measured. It also provides a foundation for project staff and producers to design a range of extension activities to fit the outcomes sought at each major step.

Any process is incomplete or ineffective without grounding the process and tools in practice by experienced extension staff. Research to Reality staff did this well. A range of extension delivery methods including on-property meetings, teleconferences, field days, information sessions etc were also used to cater to different learning styles and to help to maintain the projects energy. Keeping the three producer teams at roughly the same pace within a parallel process also helped to encourage learning between the groups and also strengthened the rigour with which the processes were being applied.

One of the appealing factors of the project to the producer members and project staff was the ability to focus on the beef business in its entirety. This meant that the profitability and the long-term viability of a business, animal production issues, natural resource issues, and the family and social capacity needs of the people involved were always considered. A beef focusing framework was developed to visual represent the discrete linkages between profit, animal production and land condition and was used in producer planning activities. Encouraging all family members to be part of the Research to Reality process added to the valuable social/community dimension of the project but also most importantly creates a shared understanding of enterprise performance, the key issues that need to be focused on and the way forward.

Quantifying the performance of beef enterprises provided a real motivation for enterprise change. Compared to the cropping and wool industries (eg. Topcrop, Farm 500, Wool Bestprac), the Queensland beef industry has been slow to quantify their enterprise performance. In the Research to Reality project producers commence the enterprise analysis process with the application the benchmarking model ProfitProbe™, this is undertaken for two consecutive years. This analysis, coupled with DPI&F's Better Decisions in the Business of Beef (Breedcow & Dynama) herd model and paddock land condition assessments, allowed producers to identify priority areas for action and investigation. For some producers, this was the first time they had looked at their financial and economic performance from a production as opposed to a taxation perspective

A key step in extending the insights drawn from the enterprise analysis was the initiation of a combined producer team meeting. This involved producers from the three teams coming together to share their enterprise performance data. This enabled the producers to start comparing their enterprises and ask the really valuable questions about why different results are achieved. This process also helped to create a collegial environment within the group and a healthy level of peer pressure and competition.

Increasing producer and project staff networks and forming partnerships between organisations or with fellow producers was an also important aspect to the project. The involvement of a number of internal and external specialists, not only ensured access to the most relevant information but it also assisted in building better partnerships between beef producers, the government and private sector research, development and extension. A healthy budget gave the project the flexibility to access advice across many disciplines and gave the project a higher level of professionalism and credibility.

Producers were able to use the advice of experts to identify, develop and implement their own on property research projects. These individual research projects were presented as practical case studies with information tailored to suit grass roots understanding and local application. This is about having producers capture their key learnings in their language, and then present this information for use by other enterprises who may be asking the same questions.

Another critical element of the project was a disciplined evaluation process. Having access to an 'expert' external evaluation provider enabled timely and relevant evaluation tools**.** Evaluation didn't become a chore but rather an integral part of the process that facilitators and participants contribute to and learn from.

WHAT COULD WE HAVE DIFFERENTLY?

Like many participatory extension projects Research to Reality took a while to really get started. We underestimated the time involved to form groups and get them working effectively. This issue combined with juggling seasonal conditions and the work schedules of the 19 enterprises meant we were constantly pushed to meet the projects timeframe requirements. Future projects should invest heavily in group process in the early stages, accelerating the group forming process and by doing so dedicating more time to the project development and research phase. One way to approach this may be to encourage producers to play more of a lead role in organising and facilitating project activities. This may assist in building group cohesiveness and increasing group ownership of the process, and reduce the time taken in coordinating and administering the various project activities. This might include partnering with producers to facilitate field days, engaging with media and designing research trials, and could also include more user pays activities which would stretch the project budget further.

The process of undertaking a detailed analysis of the performance of each enterprise raised some challenges in the range of issues it revealed. This process involved business benchmarking, land condition assessments and property planning. It revealed a number of questions and issues for each enterprise and producers were encouraged to identify issues they would like to form the basis of their on property research project. The challenge for most was to identify the issues that were most significant to their enterprise.

The project team found that producers wanted specific assistance to determine how to apply the R&D on their property and to their own unique set of circumstances. As the producer team issues had been pooled and prioritised as a team (based on motivation), the project team decided to facilitate a series of field days to provide specific R&D information. These field days helped convince people to take the next step, however, they did not eliminate the need for further one-on-one specialist assistance to help design their research projects and their overall property development. In fact, the majority of each properties 'action design' starts with seeking the assistance of a specialist.

One way to narrow the research focus is to encourage producers to use the information revealed in their enterprise analysis to identify research projects that will make a significant difference to their enterprise performance. Other producers in the team could assist in this process by playing a 'devils advocate/brains trust' role in encouraging their colleagues to narrow in on the key issues. The level of producer comfort to challenge their colleague's stems from personal relationships and impacts on the functionality of the team. For this to work project staff would need to spend more time on setting the team up with the skills to function as a team. The teams were formed by selecting a motivated producer from each region, and that person inviting trusted friends to join the team. It was thought that this process would allow the producers to function as a team quicker, as they had already established relationships. In practice, this was the case for two teams, however, one team brought unexpected relationship dynamics to the team which were difficult to resolve. Perhaps, a wider more inclusive process that invites producers to register an interest in forming a group rather than the self-selection process might be better. This would ensure that producers have the right motivation in joining the project.

Finding the right balance between enabling producer groups to 'find their feet' and engaging with media and broader industry was also a challenge. A more strategic approach could have been taken in engaging with media earlier (particularly local media) and involving them in the journey. The question remains of how the broader industry gets the benefits of the project without actually being part of the teams. Encouraging the producer groups to engage with neighbours and local industry about the project results is one strategy.

CONCLUSION

Has the project worked? At the time of writing this paper final evaluations were still being undertaken. Producer enthusiasm and commitment to the project suggests the processes used have worked. There is strong anecdotal evidence of a range of changes in thinking and practices associated with enterprise profitability and sustainability. Some of the most significant changes have occurred in the assessment of land condition and understanding about the practice changes that are necessary for improvement. The quantification of each enterprises economic performance has also been a powerful learning enabling producers to question the economic viability of a number of long held practices.

For extension practitioners the Research to Reality Project has provided the opportunity to trial new extension approaches within a committed and supportive environment. Our project successes and reflections about what we would do differently provide invaluable learnings that we can carry over into our broader extension roles.

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