

**BUREAU OF SUGAR EXPERIMENT STATIONS  
QUEENSLAND, AUSTRALIA**

**SRDC FINAL REPORT – BSS253**  
**The development of an extension network amongst**  
**growers in Tully with a view to improving**  
**industry profitability in a participatory atmosphere**  
**by**  
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**SD02018**

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## **EXECUTIVE SUMMARY**

The challenge for industry personnel was to develop a network amongst canegrowers in Tully that would provide more effective extension of research and development than current methods could achieve. A project in Mulgrave had been operating successfully for twelve months and was based on groups of growers that were dealing with similar issues. We used this model to design a program that would utilise extension resources pre-existing in Tully to provide an on-farm, participatory approach to increase the adoption of best management techniques within the sugarcane farming system.

A steering committee was formed with representatives of the four major bodies in the Tully sugarcane industry – Bureau of Sugar Experiment Stations (BSES), CANEGROWERS, Cane Protection and Productivity Board (CPPB), and Tully Sugar Limited. This steering committee met initially to develop the program and acted in an advisory capacity to local extension staff. This project was instrumental in that it provided the operating funds required to get the whole process off the ground and allowed it to gather some momentum.

Grower groups were established in each of the seven mill districts within Tully. These were named 'Farmer Forums' to dissociate them from 'shed meetings' and to foster an interactive rather than a 'sit there and listen' type atmosphere. All of the groups were satisfied with our proposal and committed themselves to the process.

The whole basis for the groups was to encourage participation and active learning. The best way to achieve this in a farming community is to get farmers' hands dirty. The program resorted to informal meetings in a shed or under a house when the weather prevented any outside activity, but generally the groups met and undertook a practical, timely exercise on-farm. These exercises ranged from timing of weed control to harvesting and transport issues.

The groups also set up particular demonstration sites, managed by the growers under professional guidance, which are being used to show how best management techniques might improve current farming methods.

The groups were a little slow to grasp the whole 'group' concept but were all positive about setting their own direction. As a result, the demonstration sites are a mixture of old and new technology. Some groups wanted to jump straight into the new things and other groups saw the benefit of getting the basics right before they tackled any new issues.

Although the whole concept of group learning is not new to agriculture in Australia, it has proved to be a continual learning experience for both the growers and staff as we develop this program in Tully. During the course of the project we have shared these experiences with other districts and will continue to exchange ideas.

Although the project and SRDC funding have finished, there is no intention to let the group process end. The steering committee will meet again to revise the program and the groups will continue to operate indefinitely.

## **1.0 BACKGROUND**

There are many organisations that have invested a considerable amount of money into investigating the constraints on our industry that limit both productivity and profitability. This research has given the industry a number of possible solutions; however, their implementation by industry is slower than funding providers would like. This may be a result of inefficient extension techniques or a resistance to change.

The Tully industry leaders realise that the problems facing the sugar industry cannot be solved through research alone, and it has been recognised that the extension of this research knowledge to industry participants is vital.

Best management techniques have been developed to address issues affecting the profitability of the sugarcane system such as declining ccs, harvesting efficiencies and canegrub management. These strategies can alleviate some of the problems that industry faces.

The adoption of these best management techniques was seen as paramount to the long-term sustainability of the industry, and a district-wide approach to extension was believed to be the most effective means of achieving this result. This project was to provide some of the operating cash to get the idea off the ground in Tully.

The Tully Productivity Committee, consisting of representatives of four major bodies in the Tully sugar industry (BSES, CANEGROWERS, CPPB and Tully Sugar Ltd), having seen the benefits of a like project in Mulgrave, has committed itself to the outcomes of this project and will continue the network of grower groups beyond project CP2002.

## **2.0 OBJECTIVES**

The project objectives were to:

- improve the profitability of the major contributors to the Tully sugar industry (growing, milling and harvesting) through the increased adoption of Best Management Practice Guidelines;
- implement an extension system based loosely upon the Mulgrave model that utilises the extension resources pre-existing in the Tully area to target 100% of growers;
- provide an on-farm participatory approach to increasing the adoption of best management practices by growers and enhance their profitability.

This project developed a program in Tully of extending the Best Management Practice Guidelines identified through project CP2002 and other like projects. It targeted 100% of the growers through participatory and practical demonstration. This approach has increased the awareness of best management practice principles amongst local industry but, after only fourteen months of operation, we have not been able to determine the adoption rate or additional profitability that will eventuate.

## **3.0 METHODS**

The project began with the formation of a steering committee from representatives of the Productivity Committee. This steering committee acted in an advisory capacity to the coordinators of the grower network. The coordinators were staff from BSES and the CPPB with administrative and technical support provided by the CANEGROWERS organisation and Tully Sugar Ltd.

Seven groups were established initially to gauge grower support for the idea in each of the mill districts of Tully – El Arish, Feluga, Lower Tully, Euramo, Syndicate, Riversdale and Murray/Warrami. They were called ‘Farmer Forums’ to differentiate these events from shed meetings and to dissociate them from any one organisation. It was made clear that it was not just BSES or Tully Sugar Ltd organising these events, but a whole of industry approach was being adopted. It was also made clear that people had no obligation to attend any particular meeting and they were encouraged to visit other areas.

Two staff were present at each meeting – one to act as the facilitator and another to take notes. At the initial meetings, the participants decided that the idea was worth continuing. Each group established a list of issues that could realistically be dealt with locally and prioritised them. We used this list to develop a program of events to satisfy some of the issues for each area. This list was similar in content between the different areas but generally the priorities were assigned differently.

The items discussed at each meeting were determined by the participants and not limited to production issues. A broad range of topics was addressed including milling and transport issues through to sugar quality. These were generally timely discussions that coincided with activities on the farm. The focus to date has been on practical exercises to demonstrate best practice techniques at timely periods in the cropping cycle followed by informal discussion of issues as they are raised.

The item chosen for discussion, by the group or otherwise, was dubbed the ‘nugget’. This was a relevant topic that was primarily used to generate discussion, but also acted to attract people to the meeting. The meetings started off resembling a shed meeting, but there was a transition period through the course of the meeting where it turned into something closer to a facilitated focus group when group discussion took over. The nugget has been used to provide a catalyst for discussion amongst the participants. It was preferable that each nugget included, or at least preluded, a practical element to the discussion rather than just provide information.

A meeting book was kept for each group and used by the note-taker to record the various topics discussed. Topics to follow up were highlighted and action was taken to address those issues. We used this to great effect where the issues were similar in each group by organising group activities such as bus tours and demonstration days. The high attendance at these organised events suggests they are worthwhile and interesting to growers.

The meetings were kept very flexible in both their timing and format to suit the timetables of both participants and coordinators. During the growing season, when the weather is generally wet, growers are more inclined to meet in a shed or under a house and are prepared to discuss topics at greater length. During the harvest and planting seasons, growers are keen to see things as they happen in the paddock to gauge the success, or otherwise, for themselves.

#### **4.0 RESULTS**

The groups were a little slow to grasp the whole 'group' concept but eventually they were all positive about the direction they could take. As a result, the demonstration sites are a mixture of old and new technology. Some groups wanted to jump straight into the new things and other groups saw the benefit in getting the basics right before they tackled any new technology.

There are two sites looking at the new variety Q201<sup>A</sup>. This variety was released only in Mulgrave and there are very little productivity data from Tully. One site only was planted with Q200<sup>A</sup> due to the lack of available material, and five sites were planted with Q198<sup>A</sup>. Q198<sup>A</sup> is a flood tolerant variety suited to rich land (riverbank) soils and should prove to be beneficial to a number of affected growers on the Tully and Murray rivers.

One site was planted under two different cultivation methods. Zonal (also called strategic) and conventional cultivation were compared. Initial observations suggest that zonal cultivation will do better than conventional primarily because of the ability to retain moisture when only working the old row. This moisture retention enhanced germination in the particularly dry planting season of 2001. There are many more paddocks planted using this system that show similar results in a particularly dry season. The subsequent performance of these areas will be of particular interest to the groups in the drier parts of Tully.

Five non-cane trap crops for greyback beetle were planted across the district. These used a combination of Super Sudax sorghum (early maturing variety), Jumbo sorghum (late variety) and maize. All trap crops germinated successfully but the dry weather in some districts seemed to retard growth so that the height difference between the trap and surrounding crops was not as great as we had hoped. The subsequent monitoring of these sites revealed only one greyback canegrub. Although it appeared that the trap crops did not work, the trend was similar in adjacent crops in that the grub pressure was very much reduced in 2002 compared to past years. In hindsight, the trap crops proved to be a very good indicator of greyback canegrub presence in those areas.

Through the course of BSS253, the groups have been involved in other work such as the BMP for Harvesting and the BMP for Varieties projects, Sugar Solutions, and the Cardwell Catchment Management Association. The Feluga group actually started out as a small focus group for the BMP for Varieties project and maintained this close association throughout the project with a strong interest in variety management.

Generally, the meetings are ‘BYO chair’ type events where participants sit and discuss topical issues. One hundred and seventy-eight growers have attended at least one of these meetings since the inception of this project, with some growers attending up to six times. Some growers have attended meetings outside of their area to get a feel for what is happening ‘down the road’. In addition, most of the groups met informally throughout the season to look at timely issues such as the new BSES harvester fronts, planting greyback beetle trap crops, dual-row planting and the progress of demonstration sites.

## **5.0     OUTPUTS**

The lessons learnt from our experiences in Tully through the operation of this project were disseminated to other groups attempting similar objectives. Presentations were made to the Best Management Practices subprogram review held in Cairns by SRDC and the ‘Working with Groups’ workshop series provided to BSES and CSR staff. These people are embarking on similar programs through the CSR program of increasing productivity. The presentations were well received with participants learning from our experiences with this method of extension.

The project was aimed at extending current knowledge, so most of the material was either already available through other projects or simply needed to be reproduced.

## **6.0     EXPECTED OUTCOMES**

This project has helped to create a momentum within the network of groups created in Tully. This extension method will continue to operate in Tully and provide growers with a venue to further develop and demonstrate the benefits of best practice techniques in their own farming systems. The local industry, as represented by the Productivity Committee, has been supportive of this process from its inception and is committed to its continued success.

The experience gained from such an initiative has been of benefit to other districts, particularly the CSR mill areas that are attempting a similar extension program. We will continue to exchange ideas and experiences so that all programs might benefit. If successful, a network of groups throughout the state might evolve with increased dissemination of information across mill boundaries.

The groups will continue to operate with the support of local industry even now that the project itself has been completed. This is one outcome that was always hoped for but never guaranteed because we were never sure how the group process would be perceived by the canegrowing community. Of all the objectives that this project started out with, this must be the best measure for success.

## **7.0 RECOMMENDATIONS**

The only real recipe for the success of such a project is the enthusiasm and goodwill of the participants who want the process to work and are willing to make it work.

From an organisational point of view, the groups are a cost-effective way of contacting a lot of people with concerned similar issues but they require a very significant amount of time to organise and provide back-up. Each group almost requires its own staff member to provide the organisational support that the group process requires.

The staff and growers involved have learnt a lot of lessons throughout the course of this project – most of them the hard way. The overwhelming recommendation from the groups is to ‘keep them going’.