

Grazing BMP – encouraging management changes in the grazing business

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Abstract. The Grazing BMP (Best Management Practice) program is a voluntary, online, self-assessment tool. Graziers assess their current management practices against 157 standards within five modules. Businesses also have the option to become Grazing BMP accredited. At December 2016, 1,100 businesses within the Fitzroy, Burdekin, South East Queensland and Burnett Mary Catchments had completed all five modules, from a total of 10,119 businesses in the four catchments. As at February 2017, 61 graziers (5.5%) had become Grazing BMP accredited. In conjunction with module delivery, 137 extension events were conducted between July 2015 and December 2016 attracting producers from 683 businesses. A survey of 92 producers indicated that 84% considered management changes, including 61% who considered specific land management changes. Furthermore, 73% of respondents had actually commenced or completed changes. The high level of industry participation and resultant practice change demonstrates the relevance and success of the program.

Keywords: voluntary, online, graziers, modules, website, accreditation

Introduction

The onus on landholders to improve the environmental performance of their enterprises is ever increasing (Greiner, Miller & Patterson 2008). Furthermore, the future competitiveness of Australia's grazing industry will be influenced by growing consumer and community scrutiny of sustainability at social, economic, and environmental levels. For graziers this means balancing sustainability with increasing production and/or reducing costs.

The Grazing Best Management Practice (BMP) program is a voluntary, industry-led, online self-assessment tool developed to assist graziers to identify improved practices to enhance their long term business profitability and sustainability (Grazing BMP 2017a). The program was developed in Queensland by key industry partners AgForce, the Department of Agriculture and Fisheries Queensland (DAF), and the Fitzroy Basin Association (FBA). Commencing in the Fitzroy River catchment of Queensland in 2009, Grazing BMP has expanded into three additional Queensland catchments: Burdekin, Burnett Mary and South East Queensland.

The program is made up of five modules (Soil health, Grazing land management, Animal production, Animal health and welfare, and People and business) which are designed to present best practice management principles. Graziers self-assess their current management practices against 157 standards developed by technical experts and the project's Producer Reference Group. The standards are based on the best available science and industry practice. Producers rate themselves as operating at one of three levels: 'above', 'at', or 'below' industry standard. Action plans are developed within the program to assist landholders to prioritise the most profitable and sustainable practices and to identify training requirements.

This process enables graziers to demonstrate and document good land management and environmental stewardship. The aggregated information created from these self-assessments can be used to promote industry performance and stewardship to the supply chain, governments and the wider community. Graziers can voluntarily elect to ratify their self-assessment claims by participating in the Grazing BMP auditing assurance program. Delivery staff assist graziers to prepare for the audit process before an initial audit is undertaken by an Industry Auditor to allow the participating business to become 'Accredited' (Grazing BMP 2017b). Random audits of accredited producers will be conducted by Industry Auditors to verify ongoing compliance with Grazing BMP and additional periodic independent audits will be conducted by External Auditors to review the effectiveness of the accreditation procedures.

The objective of this paper is to report on progress made by the Grazing BMP program in Queensland, including producer engagement in the program and intended practice change.

Methods

The Grazing BMP program has been delivered in Queensland by staff from DAF, Natural Resource Management groups, and AgForce. Delivery methods included group-facilitated workshops, one-on-one sessions, and self-completion online through the program's website.

Data on the number of modules completed and grazing hectares of the participating businesses have been collected through the Grazing BMP website as part of the on-line, self-assessment process. The number and outcome of audits completed is entered into the Grazing BMP

database by delivery staff responsible for facilitating the audit process. A phone survey of 92 producers who had completed the full Grazing BMP program was conducted in November 2016 to assess intended practice change (Roberts 2016). The data was collected from participants within the Fitzroy, Burdekin, South East Queensland and Burnett Mary catchments.

Results

As of December 2016, 1,652 grazing businesses in Queensland had completed at least one module within the Grazing BMP program and 1,100 businesses had completed all five modules. These businesses manage a total of 25,978,526 ha. At December 2016, 61 graziers (5.5%) had become Grazing BMP accredited (Roberts 2017).

In conjunction with and to complement the module delivery, 137 extension events were conducted by the program partners, primarily DAF, over 18 months between July 2015 and December 2016. These technical and training workshops attracted 972 producers from 683 businesses.

The phone survey in 2016 of 92 producers who had completed the full Grazing BMP program indicated that Grazing BMP is having a positive contribution on practice change by the participating graziers who have completed the program (Roberts 2016). A total of 84% of interviewed graziers considered changes to their business, including 61% who considered specific land management changes. A total of 73% had actually commenced or completed changes, which included land management practices. A total of 36% of respondents had adopted improved land condition monitoring methods and 30% had adopted improved strategies to maintain land declining in condition. Additionally, 20% of respondents had adopted improved practices to recover degraded land and 15% had adopted improved practices to manage frontage country and wetlands.

Table 1 shows the shifts made to improved and recommended practices for monitoring land condition by landholders (Roberts 2016), with the optimum land condition being level 1, condition assessed by ABCD land condition method, and the least desirable condition being level 4, condition not assessed, limited attention to bulk of pasture. The percentage of respondents using land condition monitoring increased from 5.4% prior to attending Grazing BMP workshops and extension activities to 19.6% after participation in the Grazing BMP program.

In addition to grazing land management practices, surveyed graziers also reported practice change in the other areas of their business which are covered by the Grazing BMP program. A total of 38% of respondents recorded changes in their animal production management while 49% reported that they had made changes to their herd and business records. Additionally, 13% made changes to their livestock marketing practices and 27% to the occupational health and safety procedures for their business. A total of 80% of those respondents making changes expect the changes to improve enterprise profitability (Roberts 2016).

Table 1. Numbers of surveyed graziers using one of four methods to monitor land condition before and after participating in Grazing BMP and follow-up extension activities

Management practice used to assess land condition	Before attending Grazing BMP & extension activities	After Grazing BMP & extension activities
1. Condition assessed by ABCD land condition method	5	18
2. Condition assessed by density or abundance of desirable perennial grasses	58	69
3. Condition not assessed, with focus mainly on bulk of pasture and cattle condition	24	5
4. Condition not assessed, limited attention to bulk of pasture	5	0

Discussion

The data reported here for industry participation in the Grazing BMP program, and resultant practice change, demonstrates the relevance of the program to Queensland graziers, and the success of such a program in encouraging and supporting desirable practice change.

The Grazing BMP program has proven to be accessible and relevant to the grazing industry in its delivery and follow up extension. The accessibility and relevance of the program is

demonstrated through the number of grazing businesses who have completed the program (1,652), compared to a total of 10,119 grazing businesses in the four catchments (ABS 2016). Also through the proportion of these who have further endorsed the relevance of the program by becoming Grazing BMP accredited (5.5%).

One of the main strengths of the program is the flexibility of delivery by providing three possible avenues to undertake module assessment allowing for either independent or assisted completion, to meet the varying skills and needs of the grazier community. The workshop delivery style enables graziers to participate in adult learning techniques with group interaction and peer review of practices and ideas which is known to be critical in facilitating adoption of new practices (Prokopy et al. 2008). This technique of engagement has also allowed delivery staff to build a rapport with the graziers which has proved valuable in facilitating follow-up accreditation and also ongoing technical support to enable graziers to implement practice change on-farm. The content of the Grazing BMP program has been kept relevant to the grazing industry by the annual review by the Producer Reference Group (Grazing BMPa 2017).

The high proportion of Grazing BMP participants (73% of survey respondents) actually commencing or completing practice change as a result of the program, demonstrates the value and success of the program. Completing the modules is the first step in the Grazing BMP process towards practice change and consequently their alignment with the graziers' personal or enterprise needs has been important (Pannell et al. 2006; Greiner, Miller & Patterson 2008). The next important step in facilitating practice change is the provision of further knowledge, skills and support (Kim, Gillespie & Paudel 2004; Ghazalian et al. 2009). The high attendance levels (972 producers) at the 137 Grazing BMP extension events held over an 18-month period to December 2016 is likely contributing to the corresponding high rates of producer practice change.

Responses to the survey question of how graziers monitor land condition before and after Grazing BMP participation show the significance of Grazing BMP's influence in producing improvement in practices in grazing land management practices, which are critical in reducing sediment run-off and consequent impact on the reef (Brodie et al. 2013; Barson et al. 2014). The survey results indicate that more than one-third of surveyed Grazing BMP participants have moved to an improved method of assessing land condition.

The high level of participation in the Grazing BMP program and the indicated practice change from the 2016 survey, indicates that Grazing BMP, delivered as a complete program (module assessment, development of action plans for action and follow-up extension activities), is providing a service that:

- provides knowledge of what can change to improve management
- promotes an attitude of recognising the benefits of practice change
- enables an aspiration to change
- provides the skills needed to make changes happen.

The survey confirmed that the management practice changes are in response to new knowledge and understanding gained from participation in Grazing BMP.

Conclusion

In conclusion, this paper has provided evidence of the strong progress made by the Grazing BMP program in Queensland since its inception in 2010. The high levels of industry participation in the program, and the reported practice change resulting from participation, indicate the relevance and success of the program in achieving its target objective of improving profitability and sustainability of grazing businesses.

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