



South West NRM

On-Ground Project Fact Sheet

Increasing Ground Cover on Biddenham

Landholder Name: John and Julie Cornes; Guy Newell

Property Location & Lot on Plan: 'Biddenham' – 11BND110, 1RP120029, 2RP120029, 2O5354, 11OR189, 9OR199, 7OR23 & 6OR18
(Property & project location maps attached at the end of the document).

Property Outline:
(E.g. Property description, size in hectares, enterprise, annual rainfall, and current management practice)

'Biddenham' is 26,955 hectares. The key enterprise involves the maintenance of a self replacing cattle breeding herd which aims to produce an annual turnoff of up to 500, 400-450kg feeder steers for backgrounders and feedlotter on the Western Darling Downs. Biddenham's topography, land zones and location make it well suited to this enterprise.

Biddenham has been owned by John and Julie Cornes since 1997. Prior to this time, John and Julie lived in the Goondiwindi district where they owned a sheep, cattle and dry land cropping property. Guy and Natalie Newell (nee Cornes) have been assisting John and Julie in the management of Biddenham since 2008. The business also employs one other full time person.

The median annual rainfall figure for Biddenham is 470mm, records of which go back to 1881. 2009 was an extraordinarily tough year which totalled 260mm whereas 2010, by an unbelievable contrast will go close to exceeding four times that cumulative figure. 2010 will probably not exceed the wettest year on record (1231mm) for Biddenham but it is already well above the wettest 95% of years since 1881.

Biddenham's three major land zones are Undulating Brigalow Lands, Wooded Downs and Undulating Gidgee Lands. These land zones respond very well to pasture improvement via a combination of treatment of woody weed regrowth, sowing improved pasture species, improving pasture utilisation through strategic fencing of paddocks and maintaining a system of rotational spelling of paddocks during the pasture growth season. These principles have enabled Biddenham to achieve a safe carrying capacity of 2000 AEs at around 14 Ha per AE. Biddenham's self replacing breeding herd was run on a conventional management system until recently. Now half of the herd is being run under an Organically Certified system (on Mountain Farm which is a surveyed separate block on the southern end of Biddenham) whereas the other half will continue to be managed conventionally. This will enable a comparison of the productivity of both enterprise management systems to be compared for Biddenham as well as offering some greater opportunities and flexibility in marketing our end products.



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Q2
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and
Country

This project is supported by South West NRM through funding from the Queensland Government's Q2 Coasts and Country and Australian Government's Caring for Our Country.

Project Description

To re-fence Bottletree Paddock, a 2,495 ha paddock, into three smaller paddocks - North Bottletree 924 ha, South Bottletree 652 ha and West Bottletree 919 ha. The attached map shows the project area. The length of new fence required is 8.49km. There are only 3 existing watering points in 3 corners of the paddock and 1 of these is old and needs upgrading. 5 new watering points will be added to promote a more even grazing pattern and more efficient use of the available feed. 6.4km of 50mm Poly Pipe is required to deliver water to these points. Budget allocation \$10000.00 (incl. GST).

Project Aim

Owners of the 26,955 ha property Biddenham, John and Julie Cornes, have long held a Property Management Plan which aims to increase ground cover, biodiversity, pasture quality and quantity through increased pasture utilisation and a system of rotational grazing. The plan has identified several large paddocks which are inefficiently grazed by stock for refencing by land type into smaller paddocks to produce a greater total amount of ground cover, less water runoff and more efficient pasture utilisation. This project targets 1 of these paddocks.

Project Outcomes

This project, in conjunction with a rotational grazing system that will rest paddocks during active growth periods, will encourage a more uniform grazing pattern of our cattle which will enable them to make better use of the productive pasture species, while taking pressure off the less productive pasture species in this area of the property. The net effects will be better cycling of carbon back into the soils across these paddocks which will result in improved ground cover, biodiversity, water infiltration and pasture productivity.

Outputs

CB1.1 Events; 1 field day; expected approx. 20 persons.
OG3.4 Enhanced terrestrial vegetation; 2495 ha. Project will influence 26955 ha under property management via rotational grazing practices.
OG 14.5 Groundcover management; 2495 ha. Project will influence 26995 ha through rotational grazing practices; 2 land managers adopting improved management practices and influencing up to another 20 through the field day.

Project Monitoring:

Objectives:

Monitor ground cover response, presence of pasture species and biodiversity, and production benefits in response to a reduction in paddock size from 2495ha fenced into 3 smaller paddocks and enhancing rotational grazing practices.

Indicators & Methodology:

Indicators: 3P pasture species, percentage groundcover, pasture quantity, rainfall, grazing days, and land condition.

Methodology: Transects and photo points, standing dry mass, use of grazing charts, *Stocktake* monitoring.

Monitoring Schedule:

Establish baseline data prior to the commencement of the project.

To assist project collaboration and holistic data analysis under the project, the initial collection and onforwarding to South West NRM, of rainfall and ongoing production monitoring data (e.g. grazing days / location etc. incorporating actual rest periods for each paddock, yields: stock days / ha, stocking rate), will be the responsibility of the landholder.

Biophysical monitoring every six months in which South West NRM will be responsible for collecting, collating, interpreting and reporting data.

Two pasture monitoring transects considering pasture species and ground cover established within the project area representative of the major land types.

Two photo monitoring sites within the project area representative of the major land types.

One pasture monitoring transect and one photo monitoring site located upon the property, external to the project site, as a comparison site.

Analysis: Return on Investment. Develop a case study comparing return on investment of rotational grazing systems as developed under this project, and comparing the economic return on investment to the project comparison site.