

MANAGING CLIMATE RISK IN GRAZING SYSTEMS IN THE MACKAY WHITSUNDAY REGION



MANAGEMENT PRACTICES & CLIMATE RISK

USE SEASONAL FORECASTS TO MAKE LAND MANAGEMENT DECISIONS – these can include buying or selling cattle, new infrastructure projects (building dams, roads), pasture renovation, fertilising etc. An example resource is CliMate©, downloadable from the Australian CliMate website⁽²⁾.

MANAGE PASTURES through land type fencing and maintaining a good cover of 3P grasses⁽³⁾ for biomass and optimal infiltration in storm events. Dense 3P pastures with good ground cover maximise the land's ability to respond to rain and produce useful forage as well as providing an effective trapping and filtering medium to slow water and increase infiltration. Soils under 3P 'wet-up' faster and have greater soil moisture content than bare ground and annual grass patches, especially in the early wet season.

EFFECTIVE WEED MANAGEMENT will be essential to maintain pasture condition as well as reduce threats from potential 'new' pest species. These include invasive grass species that are not palatable to stock and may increase fire risk⁽⁴⁾.

LAND TYPE FENCING where practical and appropriate will assist in managing stocking rates to maintain good ground cover and reduce the risk of erosion in extreme weather events.

STRATEGICALLY PLACED VEGETATION will assist in reducing surface erosion following storm events that can lead to gully formation. Windbreaks and shelterbelts can reduce the velocity of wind speeds and reduce moisture loss. Native vegetation also provides shade, potentially reducing livestock mortality in extreme heat conditions. There is also potential to receive payments for 'carbon storage' by managing existing vegetation or replanting new areas.

OPTIONS will vary for individual graziers and you are encouraged to consider your specific issues, potential risks and seek additional information.

BACKGROUND

Queensland graziers are used to managing their farms in a variable climate, however the climate is becoming more variable. The State of the Climate Report 2014⁽¹⁾ states that Australia's climate has warmed by 0.9°C since 1910, the frequency of extreme weather events has increased and we are experiencing more hot and fewer cool days.

"MANAGING CLIMATE RISK IS AN IMPORTANT COMPONENT OF SUSTAINABLE PRODUCTION"



1. <http://www.csiro.au/Outcomes/Climate/Understanding/State-of-the-Climate-2014.aspx>
2. <http://www.australianclimate.net.au/>
3. 3P grasses are those that are palatable, perennial and productive. Examples of 3P grasses in Mackay Whitsunday include rhodes grass (*Chloris gayana*), signal grass (*Brachiaria decumbens*), pangola grass (*Digitaria eriantha*), tully humidicola (*Brachiaria humidicola*) and creeping blue grass (*Bothriocloa insclupta*).
4. Examples being giant rat's tail grass (*Sporobolus pyramidalis* and *S. natalensis*) and gamba grass (*Andropogon gayanus*)

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