

**Rural R&D for Profit program
Final Report**

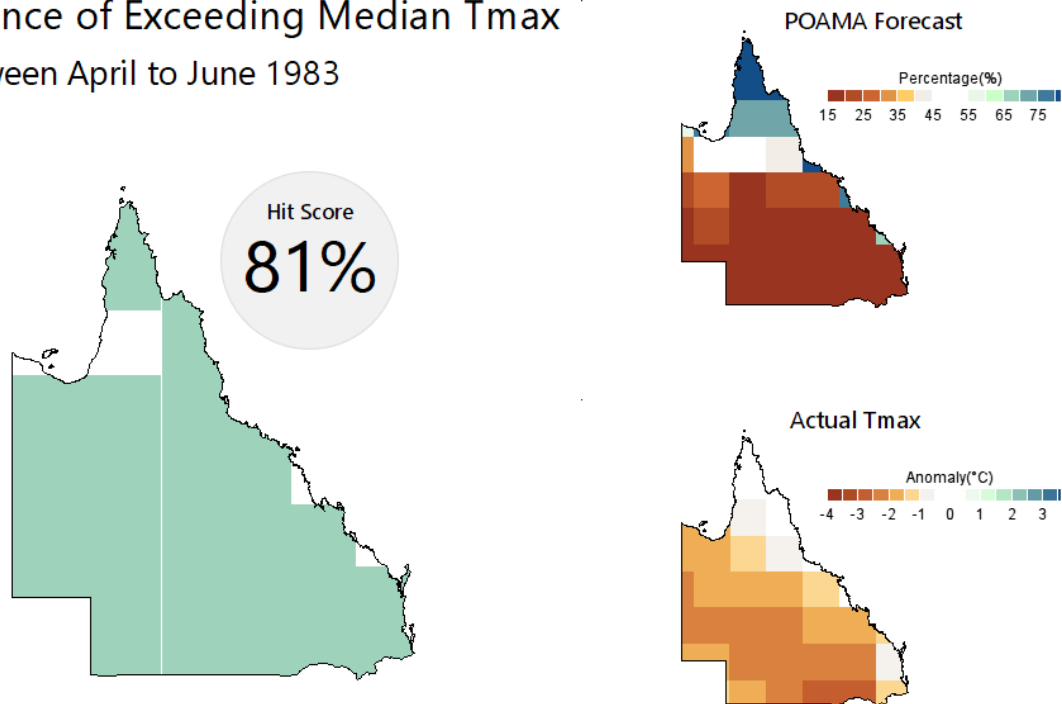
Improved use of seasonal forecasting to increase
farmer profitability



APPENDIX 8

Case study events and periods of concern (links to framework/matrix of decision systems identified through user workshops) to provide details of appropriate forecast systems now tested and available to users.

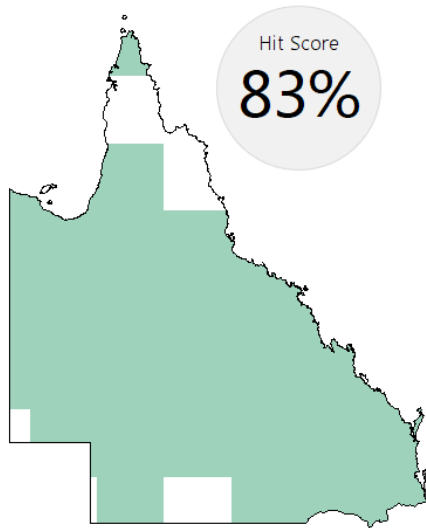
Chance of Exceeding Median Tmax Between April to June 1983



Model data April to June 1983 of CAWCR - Centre for Australian Weather and Climate Research

Figure 1: April-June 1983 Central Queensland; temperature. Excessive cold and wet combinations that let to huge stock losses resulting from cold and respiratory illnesses.

Chance of Exceeding Median Rainfall Between April to June 1983



Model run: April 1, 1983

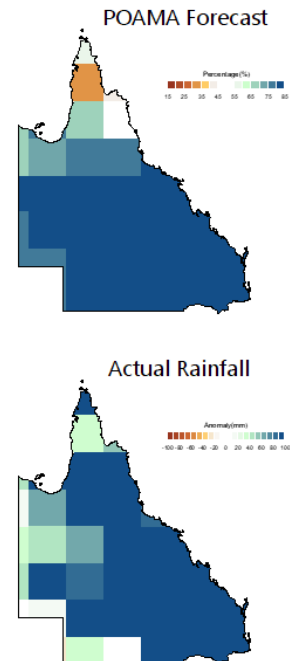
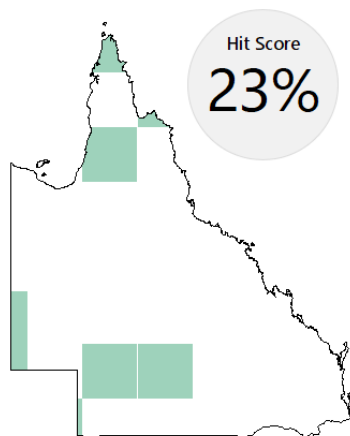


Figure 2: Figure 1: April-June 1983 Central Queensland, rainfall. Excessive cold and wet combinations that let to huge stock losses resulting from cold and respiratory illnesses.

Chance of Exceeding Median Tmax Between June to August 2007



Model run: May 21, 2007 CAWCR - Centre for Australian Weather and Climate Research

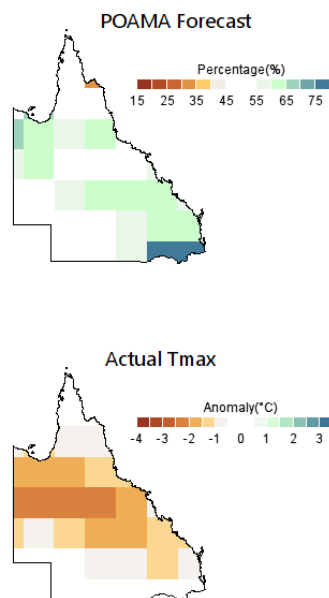
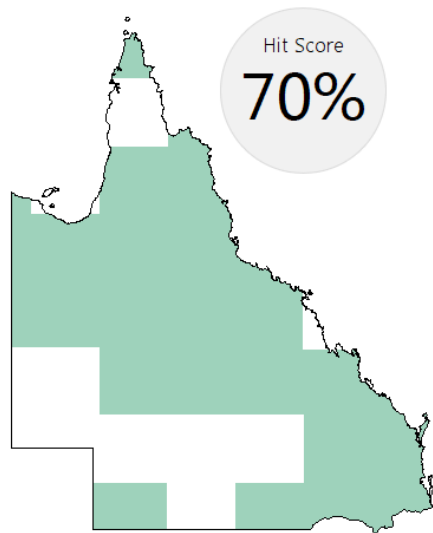


Figure 3: Temperature forecast output for June to August 2007. It produced large stock losses due to a combination of cold temperatures (maximum) and high rainfall for that time of year. NB differing forecasts issued in mid-May and end-May/1st June for the same period.

Chance of Exceeding Median Rainfall Between June to August 2007



Model run: June 1, 2007

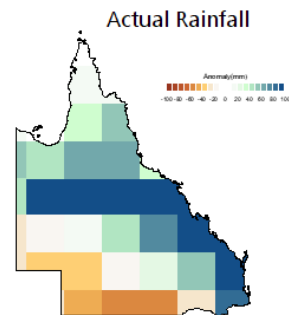
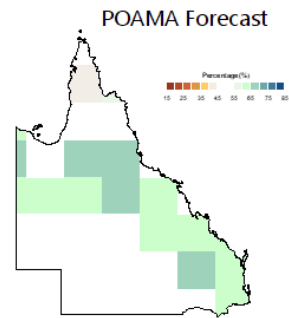
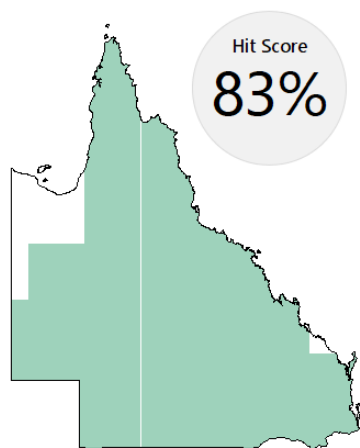


Figure 4: Rainfall forecast outputs for June to August 2007. It produced large stock losses due to a combination of cold temperatures (maximum) and high rainfall for that time of year. NB differing forecasts issued in mid-May and end-May/1st June for the same period.

Chance of Exceeding Median Tmax Between December to February 2003



Centre for Australian Weather and Climate Research

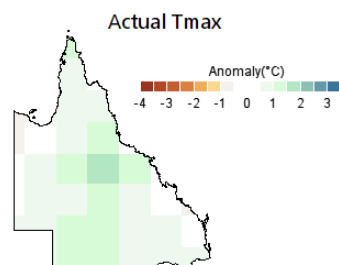
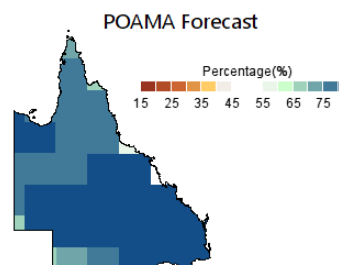


Figure 5: High temperature forecast probability values for Dec-Feb 2002/03 (as required by graziers). High temperatures plus drought conditions resulted in large stock losses.

Chance of Exceeding Median Rainfall Between December to February 2003

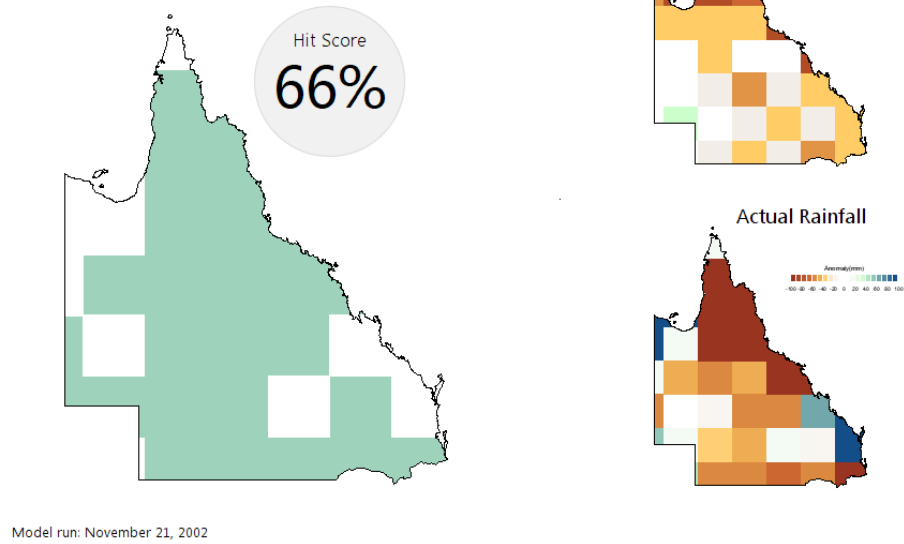


Figure 6: Low rainfall forecast for Dec-Feb 2002/03 (as required by graziers).

Chance of Exceeding Median Rainfall Between August to October 2015

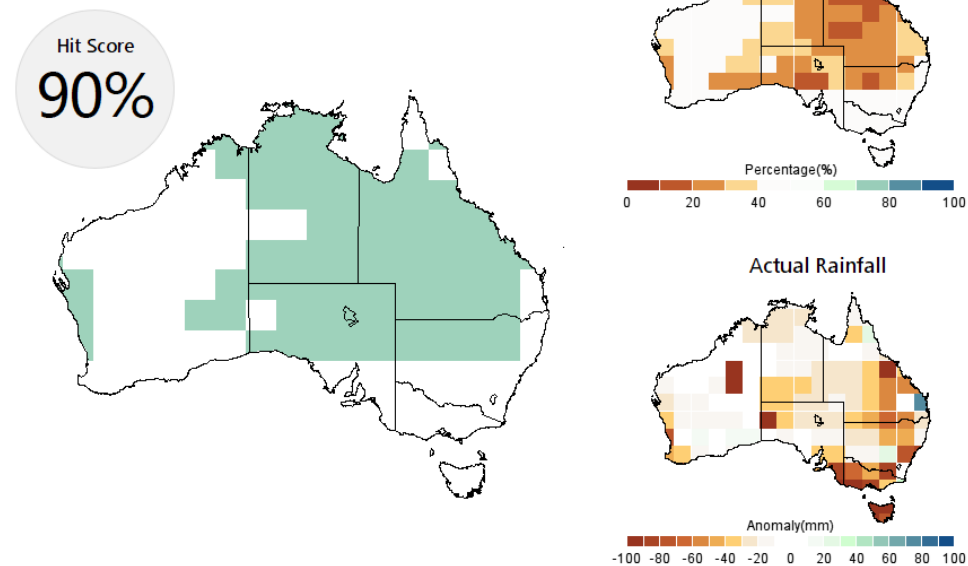


Figure 7: Low rainfall forecast for 'spring' 2015 (requested by graziers who also asked for examples of ECMWF forecasts).