

DAIRYING IN A CHANGING CLIMATE

Summary from DairyTas workshop held in Launceston, December 2010.

What is *Climate Futures for Tasmania*?

The *Climate Futures for Tasmania* research has used a unique downscaling approach to look at climate change trends on a localised 10 km grid scale over Tasmania, out to 2100. Six Global Climate Models (GCMs) have been used to generate modelled climate data. The modelling outputs have been tested against climate observations. *Climate Futures for Tasmania* (CFT) is not intended to inform short term production decisions, but it can help inform investment decisions for industry eg. where processors should invest. See www.acecrc.org.au/drawpage.cgi?pid=climate_futures and http://www.climatechange.tas.gov.au/government_action/climate_futures for more info.

Outlook for Tasmanian dairy regions (presented by Greg Holz, James Bennett, CFT team)

Farmers have always dealt with climate variations. What will change over time is the mean around which the variations will occur. Temperatures will increase across the State, with the greatest increases likely in the Central North.

Rainfall distribution will vary regionally and seasonally from historical trends. There is a steadily emerging pattern of increased rainfall over the coastal regions, and reduced rainfall over central Tasmania and in the north west of Tasmania. The North East is likely to see increasing rainfall, particularly in summer and autumn. The Far North West is likely to see decreasing rainfall in summer and autumn, but wetter winters. Decreased rainfall in the Central Highlands may reduce inflows to some agricultural storages such as the Meander Dam, but this is likely to be compensated by reasonable rainfall further down the catchments.

Production impacts (presented by Dr Richard Rawsley, TIAR)

Increases in daily temperatures with corresponding increases in atmospheric carbon dioxide (CO₂) concentrations is likely to increase annual pasture yields in most Tasmanian dairy regions, although increases in the number of days exceeding 28°C will most likely lower summer growth of perennial ryegrass. The occurrence and severity of wet winters and dry summers strongly influences on farm infrastructure decisions such as standoff areas, feedpads, and irrigation developments. Current projections indicate that there is likely to be minimal change from the historical baseline in the occurrence and severity of wet winters and dry summers. These projections have also highlighted that the current forage base of the Tasmanian dairy region is quite resilient. Climate change adaptations are likely to be within system adaptations with the industry continuing to focus on pasture consumption per ha as a key determinant of business success.

Silver lining for Tasmania?

The research projects that Tasmania is going to warm slightly less and that our rainfall patterns will be altered less than many other dairying regions across Australia. This has been seen in recent milk production figures across Australia, where Tasmania is the only state where production has consistently increased (Fonterra production figures were presented by Phillip Darton, Optimisation Manager).

For further information about what was covered during the workshop, please contact Rachel Brown Dairying for Tomorrow Coordinator ph. 0419 528 428.