

## NEWS FROM THE TASMANIAN INSTITUTE OF AGRICULTURE

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# Media Release

## Chiefs of Staff, News Directors

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# Taking a proactive approach to climate change

Researchers at the Tasmanian Institute of Agriculture (TIA) are helping to keep Tasmanian farmers ahead of the game when it comes to climate change.

The disruption that climate change may have on Australia's food supply chain was highlighted in a report released this week by the Australian Climate Council.

The report, *Feeding a Hungry Nation: Climate Change, Food and Farming in Australia* found that Australia is one of the most vulnerable developed countries in the world to climate change impacts.

TIA researchers are tackling the challenge of climate change head on and have developed climate change projections at a local scale, with detailed climate modelling of Tasmania to assist farmers understand the impacts of climate change on agricultural production during the next 90 years.

Senior Lecturer in Agronomy and Agricultural Systems Dr David Parsons said "the outputs that agricultural simulation models provide allow us to both explore the potential impacts of a changing climate on agriculture, and to evaluate possible adaptation strategies."

"Even subtle changes in the projected amount or seasonal distribution of rainfall, or projected changes in temperature and evaporation rates, may influence such outcomes as seasonal crop and pasture growth patterns, nutrient and irrigation requirements, and water availability," Dr Parsons said.

Climate change poses challenges for Tasmania, but with the right research and adaptation strategies there are also opportunities.

"Understanding the negative and positive impacts of a changing climate on agriculture and the merits of and cost of adaptation strategies will enable policy makers to take advantage of opportunities for industries and farming systems," Dr Parsons said.

"With the major expansion of irrigation infrastructure across the state, Tasmania has a huge opportunity to produce high quality beef and lamb, and high yields of wheat of around 10 tonnes per hectare under intensive irrigated systems."

TIA Deputy Director, Associate Professor Dugald Close said there is excellent potential to expand current horticultural and wine regions and develop new regions in Tasmania's cool climate, with gradual climate warming likely to be beneficial.

A recent TIA-managed project, carried out by consultants Drs Richard Smart and Reuben Wells, found that many areas of Tasmania have climates and soils suitable to support new and increased planting of vineyards.

"A number of the large interstate growers and wine makers have already recognised this and for the past few years have been buying land and established orchards, berry plantings and vineyards in addition to securing contracts for grapes from Tasmania," Associate Professor Close said.

"Tasmania's maritime climate, access to reliable water, innovative growers and investors will ensure continued expansion of premium quality fresh fruit and cool climate wines into the future."

"Research undertaken in close collaboration with industry by the Perennial Horticulture Centre is focused on the equally important aspects of fruit yield and quality including post-harvest science and innovative approaches to wine and cider making."

TIA Dairy Centre leader Richard Rawnsley says milk production in Tasmania would likely increase due to higher pasture growth rates under warmer temperatures in winter and early spring and the state's investment in new irrigation infrastructure opening up new regions of the state previously unsuitable for dairy farming.

"High summer temperatures decrease growth of perennial ryegrass during summer, but introducing different pasture varieties and forages suited to hotter summers may increase overall production," Dr Rawnsley said.

"TIA is undertaking research in these areas and providing dairy farmers with information on adapting their feed and animal management systems under predicted warmer temperatures.

"Tasmanian dairy farmers are already seeing changes and are adapting to seasonal variability by modifying how they manage feed, such as cutting silage two to four weeks earlier, increasing dam storage capacities, changing fertiliser application timing and planting of summer forage crops like turnips and maize."

TIA is a joint venture between the University of Tasmania and the Tasmanian Government.

**Information released by:**

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