



Involving farm groups in search for local solutions

THIS CASE STUDY IS ONE IN A SERIES DEVELOPED TO SHOWCASE OUTSTANDING EXAMPLES OF COLLABORATIVE ACTIVITY WITHIN THE AREA OF CLIMATE CHANGE RESEARCH, DEVELOPMENT AND EXTENSION IN THE AUSTRALIAN PRIMARY INDUSTRIES SECTOR.

BY CCRSPI PARTNERS, THE AUSTRALIAN GOVERNMENT DEPARTMENT OF AGRICULTURE, FISHERIES AND FORESTRY, THE GRAINS RESEARCH AND DEVELOPMENT CORPORATION AND STATE AGENCIES

With crop and pasture production in Australia likely to change as a result of elevated atmospheric carbon dioxide and a warmer, possibly drier climate, it is important that farmers think about how they might adapt to, or mitigate these impacts on-farm. The National Adaptation and Mitigation Initiative (NAMI) is a demonstration program that aims to have Australian farmers using knowledge and technology to test different on-ground pasture and cropping techniques in a range of different environments.

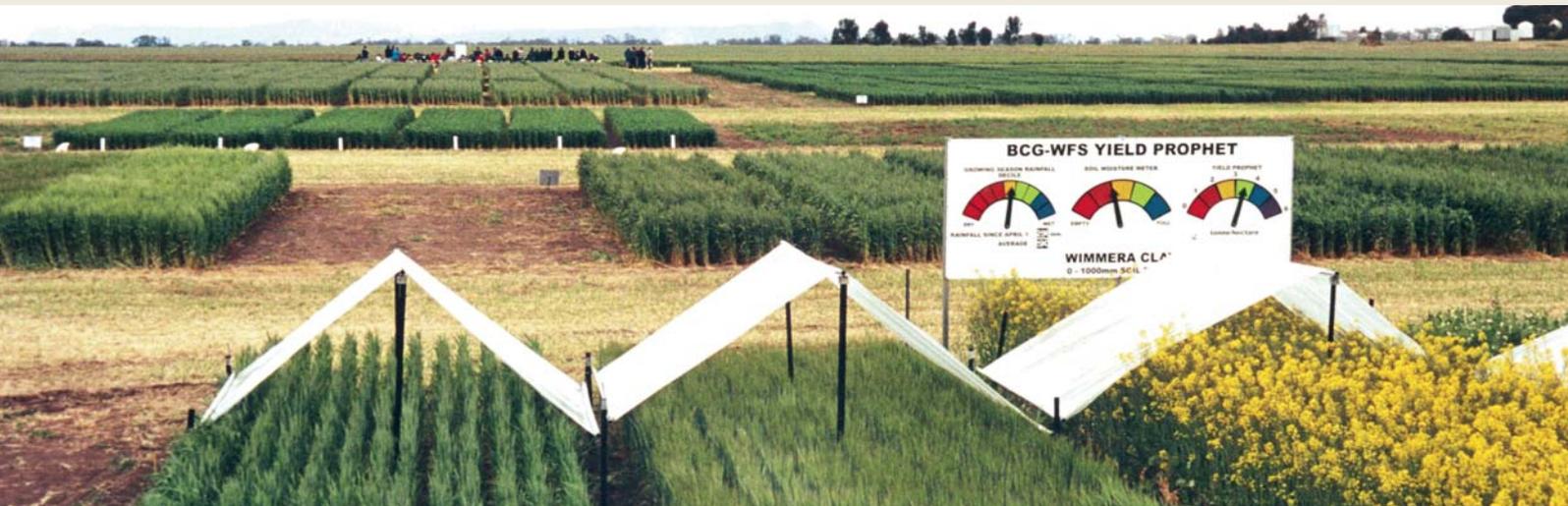
The participatory project is coordinated by the Birchip Cropping Group. Sites are located across New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia. In all locations, the on-ground demonstrations of adaptations to climate change have been designed through partnerships between farmers and advisers from local farm groups and researchers. They explore a range of adaptive practices to see what best suits the region, for example, earlier sowing to ensure crops do not flower or ripen during the time of the year when heat shock events are likely to become more prevalent.

Each farm group has designed trials specific to their region, with the results showcased to the farming community at field days and other farm group activities. A 2011 field day in Victoria attracted 500 people, with farmers showing other farmers a range of adaptations that had proved successful at their local trial site. These included very early sowing in the Mallee with selected long season wheat varieties, as well as farmers combining the rainfall forecasts from the Predictive Ocean Atmosphere Model with Yield Prophet, an online crop production model, to make decisions about the application of in-crop nitrogen fertiliser.

The direct involvement of farmers and advisers in the design and running of the sites has demonstrated the value of such participatory activities for communicating both potential climate change risks and suitable adaptation options.

Local participation not only increases the regional relevance of the problems being investigated and the solutions developed, but also promotes rapid dissemination of new knowledge through local farm networks.

The new production systems that result from these demonstrations will benefit farmers and the grains industry through greater profitability in a changing climate, healthier soils, more sustainable resources for continuing productivity, and reduced greenhouse gas emissions.



FOR MORE INFORMATION

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Project: www.bcg.org.au/cb_pages/impact_of_climate_change.php

Yield Prophet: www.yieldprophet.com.au/yp/wfLogin.aspx

Predictive Ocean Atmosphere Model for Australia:

www.bom.gov.au/climate/poama2.4/poama.shtml

CCRSPI is a collaborative response to the opportunities and challenges posed by climate change for Australian agriculture, fisheries and forestry. It is a joint initiative of the rural research and development corporations; the state and territory governments; the Australian Government Department of Agriculture, Fisheries and Forestry; and the CSIRO.