

Indo-Australian project on root and establishment traits for greater water use efficiency in wheat 2



Key details

Location

India

Duration

Start Aug 2013

End Jun 2018

Budget

AUD 919,999

Commissioned organisation

CSIRO

Partners

Agharkar Research Institute; Banaras Hindu University; Directorate of Wheat Research; Indian Agricultural Research Institute

Project Leader

Richard Richards - CSIRO Plant Industry

ACIAR Research Program Manager

Dr Eric Huttner

Program

Crops

Project code

CIM/2013/011

The project focused on two important research areas:

1. **Improving crop establishment when sown earlier.** Earlier sowing makes water use more efficient, and the wheat crop can avoid drought and high temperatures during the critical flowering period. Earlier sowing also means warmer soils, which can be hazardous to crop establishment.
2. **Increasing the rooting depth of wheat.** Wheat lines with deep roots can access more soil water at depth during grain filling. The project will explore whether this results in higher yields.

If farmers had access to improved wheat varieties that could be sown earlier and with deeper roots, the improved water-use efficiency would result in higher yield and income for farmers.



ACIAR

Australian
Aid 

Overview

This project aimed to make water use more efficient and to increase wheat yield in the rain-fed and minimally irrigated zones of India and Australia.

The researchers were searching for new methods, germplasm and molecular markers for efficient water use that could be used to improve wheat in both countries.