

## Thesis abstract

# Conservation biological control in brassica crops using Australian native plants

Sunita Pandey

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The practice of planting companion plants to enhance the efficacy of natural enemies as a pest management tool is a form of habitat management. This has an important role in conservation biological control. In such a context, this thesis investigates the use of Australian native plants in habitat management to support conservation biological control in brassica crop systems in temperate Australia. The research found that Australian native plants benefited natural enemies by increasing their lifespan and population in brassica crops adjacent to native habitats. Native plants that provide resources to natural enemies also enhanced complementary ecosystem services such as enhancement of pollinators and wild butterflies. This shows scope for farmers to take

advantage of potentially multiple ecosystem services by incorporating native flowering plants into farming systems. This work highlights the importance of plant selection and the risk of trade-offs among ecosystem services. This research also highlights the need for reductions in pesticide use to assist conservation biological control.

Dr Sunita Pandey  
Faculty of Science, School of Agricultural  
and Wine Sciences  
Charles Sturt University  
Orange NSW 2800  
AUSTRALIA

E-mail: [pandey.sunita2009@gmail.com](mailto:pandey.sunita2009@gmail.com)