



Abstract Benefits and Challenges for Expanding Protected Cropping in the Australian Tropics ⁺

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Abstract: Protected cropping of vegetables in Australia is largely located in temperate climate regions, however there are opportunities for growers in the Northern tropics to benefit from technologies that mitigate risks associated with climate variability and assist accessing domestic and export markets. Evidence from overseas and research by the Queensland Department of Agriculture and Fisheries (DAF) suggests that, for some high value commodities, protective cropping technologies are a cost-effective way for growers to mitigate the effects of extreme temperature, rainfall, changes in humidity, wind, solar radiation and pest and disease pressures which can negatively impact yield, quality and consistency of supply. Research for development of suitable protected cropping systems for growers in northern Australia has been focusing in awareness, proof of concepts, advice and information sharing. Discussions with industry stakeholders, on-farm demonstrations and trials, and industry study tours have been critical for the identification of costeffective structure designs and agronomy practices. There are many aspects of these farming systems that still need to be advanced for warm climatic regions. To enable adoption, research will need to consider economic and environmental aspects within the context of resource diversity and availability and markets to be targeted. A new project aims to map potential pathways that will support adoption of protected cropping in the Australian tropics.

Keywords: protected cropping; tropics; Australia; greenhouse; vegetables



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