

**Title** Postharvest infestation of Australian native bush tomato (*Solanum centrale*)  
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#### **Abstract**

Bush tomato is grown naturally throughout the central Desert region of Australia, but is cultivated also in some parts of South Australia, New South Wales, Northern Territory and Western Australia. It is known also as the desert raisin or an 'Akudjura' in some aboriginal communities in Australia, Bush tomato is in great market demand and is therefore emerging as an important bush food plant. Pests attack bush tomato when grown as a native or cultivated crop during production and/or during the post-harvest phase. Various insect-pests cause economic losses in bush tomato stored at ambient temperature. The aim of our research work was to identify various postharvest pests infesting bush tomato. Bush tomato fruit were collected from Northern Territory (Utopia-2004, Ti Tree-2005) and from Western Australia (Calingiri-2004 and Blackstone-2005). Indian meal moth (*Plodia interpunctella*), Rust red flour beetle (*Tribolium castaneum*) and saw-toothed grain beetle (*Oryzaephilus surinamensis*) were found and identified in bush tomato samples from Utopia, Ti Tree, Blackstone and Calingiri. Warehouse beetle (*Trogoderma variabile*) was found only in fruit collected from Utopia and Ti Tree. Indian meal moth is major post-harvest pest of bush tomato. Infestation of bush tomato fruit from Northern Territory with these postharvest insect pests ranged from 31-41% and from 20-37% in Western Australia. Various non-chemical treatments including heat, high CO<sub>2</sub>, liquid nitrogen or vacuum treatments were evaluated as potential as post-harvest disinfestation treatment(s) for these storage pests. It is envisaged that this research will provide a practical framework that could be used as effective large or small commercial scale alternatives to fumigation.