

# **Invasion of flowering avocado trees by *Monolepta australis* (Jacoby) (Coleoptera: Chrysomelidae) and its impact on fruit-set in North Queensland**

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**ABSTRACT.** The impact of flower-feeding by *Monolepta australis* (Jacoby) on fruit-set in avocados was assessed by (1) confinement of beetles on flower panicles to compare fruit-set with that in other insect and non-insect treatments; (2) association of sticky-trap catches of beetles in individual trees with flowering intensity and subsequent production of mature fruit. Fruit-set on panicles with *M. australis* alone ( $\bar{x} = 1.18$  per panicle) was equivalent to that when all insects had unrestricted access ( $\bar{x} = 1.28$  per panicle), which contrasted with those in the no insect ( $\bar{x} = 0.30$  per panicle) and bibionid ( $\bar{x} = 0.25$  per panicle) treatments. Ultimate fruit production in cv. Fuerte invaded by *M. australis* ( $\bar{x} = 7.6 \text{ m}^{-3}$ ) did not differ significantly from that in a commercial orchard ( $\bar{x} = 9.1 \text{ m}^{-3}$ ) 20 km away, where this beetle is uncommon. Insecticidal control of *M. australis* in flowering avocados may be counterproductive by reducing pollination.

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**KEYWORDS:** *Monolepta australis*; redshouldered leaf beetle; avocado; flowering; fruit-set; North Queensland; insecticidal control; pollination