Monolepta australis

Common Name	Red shouldered beetle		
Genus / species	*Monolepta australis*	**Order**	*Coleoptera*
Family	Chrysomelidae	**Superfamily**	Chrysomeloidae
Life cycle	These beetles undergo complete metamorphosis with the majority of the life cycle occurring below ground. Eggs are laid on the soil surface and hatch after 12 days. Larvae feed underground on roots of grasses shrubs and trees for 30 to 90 days reaching 12mm in length prior to pupation. Adults emerge after rain. Several generations a year are possible.		
Host	*Monolepta* is highly polyphagous and has been found on a large number of hosts including Avocado, Citrus, Macadamias, and Eucalypts along with a large number of agricultural crops such as corn and sugar cane.		
Identifying features	The adult is the only stage that is normally seen (other stages are subtertian). Beetles are approximately 6mm and have red shoulders and one red dot in the middle of each wing cover towards the rear of the body. The beetle is easily disturbed and flies or drops to the ground when approached.		
Distribution	Well documented in the northern states (all states other than SA, Tasmania and Victoria)		
Symptoms	Low infestations can often go unnoticed. This genus / species spends most of its life below ground and as a result plague proportion can rapidly "appear". Chewing on flowers and skeletonising on foliage.		
Signs	Initial chewing is shows as small patches skeletonised in patches on one side. As the damage progresses the leaves are completely skeletonised. Elevated populations will swarm and can readily strip foliage over large areas.		
Chemical control	A number of chemical are effective. My preference is Imidacloprid because of its extremely high LD-50. An off label permit may be required. A 0.012% solution showed efficacy with mortality starting in minutes. Spaying of half the canopy with the above solution was shown to be effective at control.		
Biological control	Whilst there are a number of natural predators, such as *Monoleptophaga caldwelli* plague populations develop unnoticed below ground. Foliage can be stripped from a tree in a matter of a few days.		
IPM	Population builds so rapidly that IPM is ineffective during plague levels. At lower levels there may be benefit in considering spot spraying of adults to reduce the numbers of following populations.		

References:

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Photographs – Mark Hartley

Photo 1: Adult beetles

Photo 2: Skeletonising of the foliage

Photo 3: Plague proportions

Photo 4: Damage to the foliage

Photo 5: Dead beetle on beat sheet after 30 minutes

Photo 6: Damage to flowers