

should be rendered more susceptible to competition with local plants and to abiotic factors such as fire. We have collected over 400 herbivorous insect species on *M. quinquenervia* in Australia. Two insects capable of reducing growth of *M. quinquenervia*, a foliage-feeding weevil, and defoliating-sawfly, have already been exported to quarantine in Florida. Other insects being considered for use in this programme will be discussed, along with an examination of their biocontrol prospects and possible impacts. The potential for providing biological control of large tree species through the combined approaches of impacting directly upon growth and reproduction, and indirectly upon competitive abilities and survivorship, will be assessed.

Eriophyoid mites (Acari: Eriophyoidea) as possible control agents of introduced plants in South Africa

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Members of the Eriophyoidea, commonly known as gall-, bud-, blister- and rust-mites, are wormlike, four-legged, phytophagous arthropods, practically invisible to the naked eye. Eriophyoid species are probably present on most higher plants and generally show a high degree of host specificity. A few are sufficiently damaging to be considered for the use in the control of, or to aid in suppressing, unwanted plants. Recent interest in eriophyoids for weed control resulted in the use of five eriophyoid species that were generally successful in weed control programmes elsewhere. Seventeen species causing appreciable damage, which may be of value in the biological control of 12 alien, invasive plants in South Africa, are listed. Selected species on *Acacia saligna* (Port Jackson), *Chromolaena odorata* (trifid weed), *Convolvulus arvensis* (field bindweed), *Cuscuta epithymum* (dodder), *Lantana camara* (lantana), *Melia azedarach* (syringa), *Solanum elaeagnifolium* (silverleaf nightshade), and *Spartium junceum* (Spanish broom) are discussed and warrant special investigation as possible control agents of these weeds in South Africa. Some of these mites have been subjected to preliminary studies, and *Aceria malherbae* which causes galling and stunting, and suppresses flowering, is being released on field bindweed in South Africa.

Little-known pathogens on well-known weeds: the results of recent surveys for potential biological control agents

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This paper is a report on the results of recent surveys for fungal pathogens of some well-known target weeds. The surveys covered a geographically diverse range of ecosystems in the purported centres of origin of the weed hosts, based on previous entomological surveys and Herb. Kew records. Amongst the weed targets (countries) surveyed were: *Carthamus lanatus* (Greece), *Xanthium spinosum* (Argentina), *Nassella trichotoma* (Argentina), *Parthenium hysterophorus* (Argentina) and *Dichrostachys cinerea* (India). The pathogens collected are briefly described and their biological control potential is assessed. Amongst the pathogens of particular interest, both from a taxonomic and a biological control viewpoint, are: *Puccinia sommieriana* (on *C. lanatus*), *Ceratobasidium* sp. (on *N. trichotoma*), *Ravenelia* sp. (on *D. cinerea*), *Phaeoramularia* sp. (on *X. spinosum*) and *Entyloma* sp. (on *P. hysterophorus*).