

Progress towards biological control of bellyache bush and prickly acacia

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Summary Bellyache bush (*Jatropha gossypifolia*) and prickly acacia (*Vachellia nilotica* subsp. *indica*), both Weeds of National Significance, are capable of dominating pasture and native grasslands, hampering stock management and expensive to control with herbicides. Bellyache bush is also toxic to stock and people. Biological control is the most economically viable management option for both weeds. Bellyache bush has been a target of biological control in Australia since 1997, with one agent released to date that failed to establish. Following field surveys in Peru, Paraguay and Bolivia, a small leaf-mining moth (*Stomphastis* sp.) was imported from Peru for host specificity testing in quarantine in 2014. Testing of 48 species has been completed, with the insect proving to be highly host specific. An application to release *Stomphastis* sp. is currently being considered by federal regulatory

bodies. Prickly acacia has been a target of biological control since the 1980s, but with limited success to date. Based on plant genotype and climate matching, the search for new agents was redirected to Ethiopia and Senegal, focussing on gall-inducers. Several potential agents have been identified, two of which, a gall thrips (*Acaciothrips ebneri*) from Ethiopia and stem-galling fly (*Notomma mutilum*) from Senegal, have been imported into quarantine in Australia for host specificity testing. Imported in late 2015, the gall thrips has been tested on more than 50 plant species. Results are promising with gall induction only occurring on prickly acacia. The stem-galling fly was imported in April 2018. A culture is currently being established in quarantine and host testing will begin later in the year.