

BLACKBERRY biocontrol

Target weed:

Blackberry species *Rubus fruticosus* aggregate

Biocontrol agent:

Blackberry leaf rust fungus (blackberry rust)

Phragmidium violaceum

**BLACKBERRY LEAF RUST FUNGUS****PHRAGMIDIUM VIOLACEUM**

First official releases occurred in Australia in 1991 and 1992, with an additional release program of selected strains in 2006.

Lifecycle: The blackberry rust has five spore types, three sexual spore stages in spring, golden spores in summer and sticky, black spores in winter. In the field, golden summer spores and black winter spores will overlap in summer and autumn.

Impact: Summer spores will germinate in the presence of moisture. The rust spore germ tube enters the leaf through the stomata (pores) in the lower surface on the leaf. Over time purple-brown blotches will appear on the leaf upper surface. Summer defoliation will result when the infection is heavy. Long term monitoring has shown a reduction in daughter plant production and a reduction in total biomass, resulting in reduced canopy density that allows native species to germinate and grow through the thicket.

When and how to release: SPORE WATER.

Make a spore suspension as per the spore water method (details on page 11). Spray the suspension immediately onto the underside of blackberry canes until run-off occurs. The rust appears to do best in open sunny locations.

When and how to monitor: Check leaves in summer for golden summer spore pustules, and sticky black winter spore pustules, on underside of leaves. Look for characteristic purple-brown blotches on upper leaf surface. Blotches should be associated with pustules on the leaf underside.



Above: Yellow summer spores and black overwintering spores
Below: Yellow summer spores associated with purple/brown blotches on the leaf surface, observed in Belair NP