

Biological Controls - New Tools for Landholders

Manning Landcare Incorporated

Invasive Grass Hammered by Fungus

The issue

Giant Parramatta Grass is a widespread, invasive weed in many areas of coastal New South Wales. This tall South African grass is high in silica making it abrasive on animals teeth and machinery. Seed heads are long and weeping, carry hundreds of small fine seeds that remain viable in the ground for many years and are spread by animals & machinery. The plants flourish in compacted, high traffic areas, spreading out eventually taking over paddocks. It is an unpalatable grass, of low nutritional value that out-competes more palatable plants. Landholders find control methods onerous, expensive, repetitive and often not effective. For our Landcare office this plant is the single, biggest weed problem that brings frustrated landholders to us looking for answers.

The solution

There is a widespread, native soil fungus, *Nigrospora oryzae*, which while benefiting the soils seems to cause a crown rot disease in these species. In our region DPI had been conducting research trial plots. Over the past 6 years Manning Landcare staff have been actively collecting and distributing, transplanting diseased plants from DPI research plots. When funding for the DPI program ceased the plots were abandoned. Enter Jeremy Bradley and Cath Eggert from Beechwood Biological Solutions. This innovative pair invested heavily in building a laboratory on their farm and continuing to refine a process to isolate the fungal spores to be used as a soil ameliorant. The cultivated fungus can be applied safely and effectively by mixing with water and spraying the solution directly onto pastures and soil. It benefits the soil by breaking down organic matter more quickly. As a by product of this process the Giant Parramatta Grass plants becomes affected tillers die off.

The impact

Interest in a biological solution to managing this grass was extremely high. News of a new method of applying the fungal spores spread quickly. We cautioned landholders to use integrated methods to continue to manage and contain GPG on their properties. Landholders were also told to monitor sites to judge what occurred following application. Anecdotal evidence from many landholders report that introducing the fungal spores has made their soil seem more friable and that Giant Parramatta Grass plants are adversely affected. Landholder reported that tussocks were compromised, weakened and sickly. No other species has been reported to have been harmed. The current extremely dry conditions are proving challenging for maintaining ground cover and revisiting monitoring sites once the season breaks will be interesting. However for now many landholders are very happy with the results so far.



Key facts

- Biological agents can be effective
- Monitoring is vital to track progress

Project Partners



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