



Pandanus Dieback

What is Pandanus Dieback?

Pandanus (*Pandanus tectorius*) is an iconic species growing on coastal dunes and headlands from north Queensland to New South Wales. Pandanus trees provide several important ecological services such as stabilising dunes and providing habitat and food for native animals.

Pandanus trees in parts of Queensland and New South Wales have been suffering from dieback since the 1990s; a condition mainly caused by infestations of the Pandanus leafhopper (*Jamella australiae*).

The leafhopper is endemic to north Queensland where it is controlled by predators not naturally present in our region. It is thought the leafhopper was accidentally introduced to our area by infested pandanus trees brought in for landscaping.

The leafhoppers feed on the trees' sap and produce a sticky honeydew by-product which encourages mould and fungal growth and kills the trees' growing points.

The trees become weakened and susceptible to secondary infections and insect attack, which eventually kills them. This process can occur within six months to two years from the initial leafhopper infestation.

Pandanus Dieback in the Gladstone Region

In the Gladstone Region, dieback is occurring in the Agnes Water/Seventeen Seventy area and other coastal areas south to Baffle Creek, with large populations of Pandanus already lost.

Coastal areas further north in the region, including Boyne Island/Tannum Sands and the harbour islands are believed to be free of leafhoppers. There is a risk the leafhopper will spread to these areas.

Recognising the signs of Dieback

There are several visible signs of leafhopper infestation and Pandanus dieback.

From a distance, symptoms include:

- Yellowing or browning leaves;
- Increased amount of dead leaf matter around base of leaf crowns;
- Leaf crowns reduced and canopy thinning;
- Poor flowering and fruiting.

Leafhopper infestations may also be obvious upon closer inspection of affected Pandanus leaf heads. The insects may be present in their different life stages, and their shed exoskeletons may also be visible, looking like a white 'fluff' within the leaf crowns.

Mitigating Pandanus Dieback

Pandanus dieback is best mitigated using a combination of different management techniques.

Short term control of the leaf hopper can be achieved using a systemic imidacloprid-based insecticide via foliar spray or stem injection. Importantly, an experienced operator must apply to prevent damage to Pandanus and non-target plants.

The parasitic wasp (*Aphanomerus pusilius*) is a natural predator of the leafhopper in its native range, and has been introduced to southern Queensland and New South Wales as a biological control agent. However, the wasps are affected by various climatic and geographic factors which can cause localised extirpation and restrict natural dispersal. Ensuring there are active populations of the wasp is considered the most effective long-term management for Pandanus dieback.

Another mitigation technique, leaf stripping, involves removing the dead leaf material from around the base of the leaf crown to directly displace large populations of leaf hoppers and inhibit mould and fungal growth.

Direct seeding and revegetation also plays an important role in expanding or reinstating populations of Pandanus in areas affected by dieback.

What can you do?

- Be aware of the symptoms of Pandanus dieback and spread awareness;
- Report signs of dieback in new areas;
- Participate in Pandanus dieback mitigation initiatives through Council and local community groups;
- At the nursery, purchase Pandanus that has been grown locally and inspect plants for signs of infection.

For more information on Pandanus Dieback, contact the Gladstone Regional Council on (07) 4970 0700.

How can you contact us?



(07) 4970 0700

STD CALLS: 1300 733 343

For those residents who currently incur STD call rates when contacting their local customer service centre



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