

Fungal canker species identified in honeybush

Genus / Species	Region
<i>Botryosphaeria dothidea</i>	Bredasdorp
	Plettenberg Bay/The Craggs
	Riviersonderend
	Tsitsikamma
<i>Diaporthe anacardii</i>	Bredasdorp
	George/Mossel Bay
	Plettenberg Bay/The Craggs
<i>Diaporthe foeniculina</i>	Bredasdorp
	George/Mossel Bay
	Plettenberg Bay/The Craggs
	Riviersonderend
	Tsitsikamma
	Uniondale
<i>Diaporthe inconspicua</i>	Plettenberg Bay/The Craggs
	Riviersonderend
<i>Diaporthe infecunda</i>	Bredasdorp
	George/Mossel Bay
	Tsitsikamma
	Uniondale
<i>Diaporthe phaseolorum</i>	Mossel Bay
<i>Diaporthe pyracanthae</i>	Mossel Bay
<i>Diaporthe species</i>	Riviersonderend
	Tsitsikamma
<i>Diplodia species</i>	George
<i>Neofusicoccum australe</i>	Bredasdorp
	Mossel Bay
	Riviersonderend

Control Measures

Implement preventive measurements for these trunk diseases such as:

- Ensure deep, well-drained soil and good air movement in plantations
- Don't establish new plantings on the downwind side of heavily infected plantations
- Cut out all dead wood, infected shoots with dieback and shoots with canker symptoms only during sunny days and towards the end of winter and beginning of spring.
- Avoid pruning or harvesting on rainy or humid days as available inoculum can germinate and colonize wounds rapidly at this time.
- Disinfect pruning tools between cuts with alcohol or 10% bleach solution.
- Use pruning wound sealant on all wounds bigger than 20 mm.
- Remove all pruned wood from the plantations and burn it.
- Avoid additional plant stress such as nutritional deficiencies and water stress during hot summer months.
- Prevent winter injury, sunburn and insect damage and promote optimum plant health, which facilitate rapid wound healing.

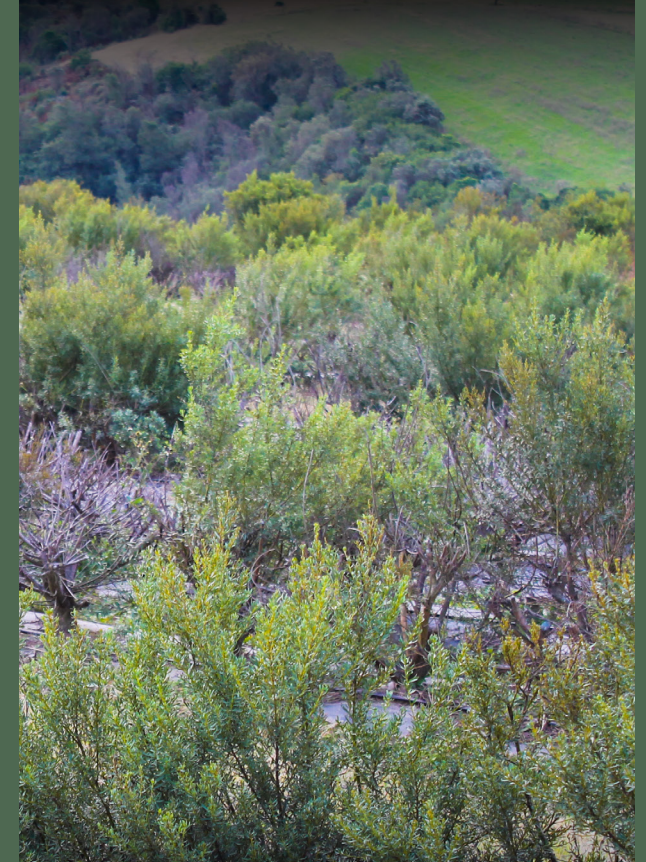
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Honeybush farmers, nurseries and communities

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HONEYBUSH DIEBACK DISEASES

ARC INFRUITEC-NIETVOORBIJ



A disease survey and identification of fungal diseases in honeybush plantations



A disease survey and identification of fungal diseases in honeybush plantations

In a recent disease survey by the Agricultural Research Council (ARC), funded by the Foundational Biodiversity Information Programme (FBIP) in honeybush (*Cyclopia* spp.), it was found that symptoms of dieback, pruning wounds and young shoot infections are commonly seen in plantations. These symptoms cause slow growth, less plant material to harvest and often cause the death of plants.

Symptoms of dieback and cankers from individual shoot infections of 3 to 5 year old honeybush disease plants were sampled from different plantations in the areas of Bredasdorp, Mossel Bay, George, Herold Meander, Riviersonderend, Plettenberg Bay, The Craggs, Tsitsikamma and Uniondale. Samples were collected from three honeybush species *Cyclopia genistoides*, *C. longifolia* and *C. subternata*.

More than 1700 isolations were made from the dieback lesions and cankers as well as from the pruning wound infections found in all the regions, plantations and species. Pathogens were identified to the genus (in culture) and species (DNA sequences) level. About 95% of the isolates were fungal trunk pathogens and ten species were identified, with the fungal diseases of *Botryosphaeria* and *Diaporthe* making up 98% of the isolates. These species are responsible for serious dieback and shoot cankers on honeybush. Other fungal isolates (<5%) were identified as *Fusarium* sp., *Penicillium* sp. and *Macrophomina* species.

All the species isolates are stored in the ARC Infruitec-Nietvoorbij Genebank for future research and identification purposes.

No fungicides are currently registered for use on honeybush. Disease infections can be managed by preventative and cultivation control measures. Improved cultivation practices such as the removal of infected plants will have a direct impact to minimise the pathogen infection in the plantations.

Symptoms of dieback on *Cyclopia* species



- Black tip
- Dieback of individual shoots
- Dieback cankers
- Dead plants



Symptoms of internal canker lesions and stem cankers on *Cyclopia* species



Symptoms of dieback cankers and cutting wounds on honeybush stems and shoots



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