

## Teratosphaeria stem canker

### Description

Teratosphaeria stem canker (caused by *Teratosphaeria gauchensis* and *T. zuluensis*) is one of the most important diseases affecting Eucalypts in Africa, Asia and South America. It was previously known as *Coniothyrium* stem canker, *Colletogloeopsis* stem canker and *Kirramyces* stem canker.

The canker was first reported in South Africa in 1987. It has also been reported in Zambia, Malawi, Mozambique, Ethiopia and Uganda. In Asia, it has been reported from China, Vietnam and Thailand. It has also been reported from Mexico.

The origin of *T. gauchensis* is hypothesised to be South American (Cortinas et al. 2011). *T. gauchensis* has been reported from Uruguay and Argentina in South America and Uganda and Ethiopia in Africa.

### Primary hosts

These diseases affect *Eucalyptus* species including River red gum (*E. camaldulensis*), Flooded gum (*E. grandis*) and hybrids.

### Symptoms

Symptoms caused by *T. zuluensis* and *T. gauchensis* are the same.

Symptoms first appear as small necrotic spots on the young green bark of Eucalypts. These can develop into large, girdling, stem cankers causing death of twigs and branches or young trees.

The disease also causes discrete sunken lesions which may merge to form large necrotic cankers on susceptible trees. The lesions have characteristic parallel cracks which give them a 'cat's eye' appearance. Fruiting bodies (pycnidia) can often be seen on the dead bark between cracks.

Kino (i.e. plant gum or sap) periodically exudes from resulting kino pockets in the wood of infected trees, staining stems and branches.

Epicormic shoots may develop on the stems of severely infected trees, and trees may develop brush-like, flattened crowns.



*T. zuluensis* lesions on immature stems of Flooded gum (*E. grandis*)



*T. zuluensis* lesions on mature stems of Flooded gum (*E. grandis*) in South Africa



### What it can be confused with

The disease can be confused with *Caliciopsis* stem and branch canker (*Caliciopsis* sp.) or with damage caused by hail stones.

### Plant part affected

The stems and branches are affected. On young green stems the disease causes sunken, necrotic lesions, while on older stems and branches the disease causes measles-like spots.

Infected timber is brittle and unsightly, making trees unsuitable for construction and sawn timber.

### Age of plant

Trees of any age may be affected. Symptoms are not often seen on trees less than 12 months old.

### Time of year pest is most likely to be seen

Symptoms may be seen at any time of the year but can be more severe in hot, humid areas, so it is more likely to be detected in subtropical and tropical regions of Australia.

### Further information

Wingfield MJ, Crous PW, Couthinho TA (1997) A serious new canker disease of *Eucalyptus* in South Africa caused by a new species of *Coniothyrium*. *Mycopathologia* 136: 139–145.

van Zyl LM, Coutinho TA and Wingfield MJ (2002) Morphological, cultural and pathogenic characteristics of *Coniothyrium zuluense* isolates from different plantation regions in South Africa. *Mycopathologia* 155: 149–153.

Cortinas MN, Barnes I, Wingfield BD and Wingfield MJ (2011) Unexpected genetic diversity revealed in the *Eucalyptus* canker pathogen *Teratosphaeria gauchensis*. *Australasian Plant Pathology* 40: 497–503.

**If you see anything unusual, call the Exotic Plant Pest Hotline**



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