

# CERATOCYSTIS WILT OF ACACIA MEARNSII



## HOST RANGE

*C. albobundus* has been described only from South Africa. The fungus was first isolated from a *Protea* species, suggesting a wide host range and a local origin. *C. albobundus* is pathogenic to all *A. mearnsii* families that have been tested in field trials. Individual trees within families that are tolerant to the disease, have also been identified.

Studies on *C. albobundus* and other *Ceratocystis* species have suggested that this fungus requires wounds for infection. Such wounds can originate from insect damage, wind, hail or silvicultural practices. Species in the genus *Ceratocystis* are closely associated with insect vectors, suggesting that *C. albobundus* may also be vectored by insects.

*C. albobundus* has a wide distribution in all the wattle growing areas of South Africa. Since the first report of this fungus from the Kwazulu/Natal Midlands, it has been isolated from trees in the Cape and South Eastern Mpumalanga Provinces. It occurs on trees of all ages.

## INTRODUCTION

*Ceratocystis* wilt, also known as wattle wilt, was first described in 1989 from the Kwazulu/Natal Midlands. The causal agent of the disease was identified as a previously unidentified species of *Ceratocystis*, now known as *Ceratocystis albobundus*. Wilting of *Acacia mearnsii* is a common phenomenon, having been reported in South Africa as early as 1932, in the Albert Falls area. The cause of the "Albert Falls Disease" was never determined, but it is likely that the causal agent was *C. albobundus*. This is considered one of the most serious diseases of *A. mearnsii*, with the potential to result in devastating losses to the industry.



Blister lesion on stem, showing the accumulation of gum.

## SYMPTOMS AND OCCURRENCE

*Ceratocystis albobundus* infections result in the formation of black mottled lesions and

## MANAGEMENT STRATEGIES

No control measures for *Ceratocystis* wilt are available at present. Selection of disease tolerant trees is, however, underway. The planting of certified seed should also minimize the severity of the disease. Reducing wounding of trees will also contribute to a lower incidence of the disease.



Wood discolouration caused by *C. albofundus*.

cankers on the bark of trees, exudation of gum from lesions, blisters (swollen gum pockets), discolouration of the wood, wilting and die-back of branches. This pathogen can lead to the death of one-year-old trees within six weeks after inoculation. Furthermore, the black lesions and gummosis on the bark will lead to difficulty in stripping of the bark. The brown streaking in the wood negatively influences its quality.



Blister lesions on the stem of a tree after inoculation with *C. albofundus*.



Perithecium of *Ceratocystis albofundus*, showing the typical colorless base.

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