

***Ceratocystis* diseases a global concern: new emerging host species in South Africa**

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During the last 10 years, there has been a marked increase in the number of *Ceratocystis*-related diseases reported on new hosts in new areas.

Of most concern is those causing mass decline of tree species, both in forest landscapes and in agricultural orchards.

In South Africa, eight *Ceratocystis* species have been described, of which two are considered pathogens. The most well-known is *Ceratocystis albifundus*, that causes a disease of non-native *Acacia mearnsii* trees used for commercial purposes. Through the course of many years of research, we have shown this pathogen to be native, and present on many host species.

More recently, a new pathogen of *Eucalyptus*, causing a wilting and canker disease, was described in KwaZulu-Natal. This pathogen was identified as *C. eucalypticola*; a fungus that is believed to have been introduced into the country more than two decades ago. Of greater concern is the recent discovery of the same pathogen affecting individual kiwifruit vines planted in the same area for commercial production. This represents a new host report and a concerning trend of potential host expansion for the pathogen. The relatedness of isolates from these two hosts, and how they connect with each other is currently being investigated.

In addition, research priorities include the development of a rapid diagnostic method to differentiate various *Ceratocystis* spp., including *C. eucalypticola*, directly from infected plant material, and the establishment of screening protocols which will be used to identify tolerant varieties of *Eucalyptus* and kiwifruit plants against the pathogen. These will become valuable moving forward as the pathogen seems to be well established in the environment.

An important risk factor in terms of biosecurity is the extent of the host range of *C. eucalypticola*, which is currently unknown.

