

Leaf spots in *Eucalyptus benthamii* in southern Brazil

Evandro Tambarussi* ^{1,2}, Izabele Soares ³, Álvaro Santos ⁴, Celso Auer ⁵,
Eduardo Rezende ³, Thiare Coelho ³, Ananda Virginia De Aguiar ^{† 5}

¹ Midwestern State University (UNICENTRO) – PR 153, Km 7, s/n - Riozinho, CEP 84.500-000, Irati, Paraná State, Brazil

² São Paulo State University (UNESP) – Fazenda Lageado, Portaria I: Rua José Barbosa de Barros, n. 1780, CEP 18.610-307 - Botucatu, São Paulo State, Brazil

³ Universidade Federal do Paraná [Curitiba] (UFPR) – Rua XV de Novembro, 1299 CEP 80.060-000 Curitiba, Brazil

⁴ EMBRAPA Florestas (EMBRAPA Florestas) – Estrada da Ribeira, Km 111 - Bairro Guaraituba - Caixa Postal: 319 - CEP: 83411-000 - Colombo, PR, Brazil

⁵ Embrapa Florestas (Embrapa) – Estrada da Ribeira km 111, Colombo, Paraná, Brazil

Forest plantations are subject to biotic and abiotic stresses that cause damage and can affect growth and productivity. Among the diseases that occur in *Eucalyptus* plantations in Brazil, leaf spots caused by several types of fungal colonizers are of particular importance. The objective of this study was to identify and evaluate the intensity of fungal leaf spots in *Eucalyptus benthamii* progeny tests. The study included 91 progenies located in Porto União, Santa Catarina State, southern Brazil. The analysis of the diseased material was conducted using both direct and indirect methods of isolation. Incidence and severity were evaluated at 16 and 27 months of age, with incidence quantified as the number of trees with spots and severity evaluated based on a scale ranging from 0 to 4 (0 - without spots, 4 - more than 2/3 of the tree canopy with defoliation). The incidence of leaf spot was total in the evaluated individuals. Symptoms such as lesions and defoliation in the lower part of the crown have been verified up to 2/3 of the crown. The average severity of leaf spots in the first assessment was 2.4, and the second was 3.4, demonstrating a progression of the disease as the trees age. Isolates revealed the presence of *Calonectria* sp. (= *Cylindrocladium* sp.) with 47% frequency in the first assessment and 64.2% in the second. *Pestalotiopsis* sp. was also detected with a frequency of 35.3% in the first assessment and 28.1% in the second. The results indicate that *Calonectria* sp. is the main pathogen causing leaf spots in *E. benthamii*, which may have an impact on the species' productivity.

Keywords: biotic stress, leaf disease, Eucalyptus, fungus

*Corresponding author: tambarussi@gmail.com

†Speaker