



## HONGOS FITOPATOGENOS ASOCIADOS A MUERTE DE BRAZOS Y PLANTAS KIWI (*Actinidia deliciosa* (A. Chev) Liang et Ferguson), CULTIVADAS EN LA VII REGION.

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### RESUMEN

El principal problema fitopatológico que tiene actualmente el cultivo del kiwi lo constituye una enfermedad que provoca una necrosis foliar y una muerte rápida de brazos y plantas afectadas la cual fue detectada a partir del año 1991, en la zona de Curicó. Se asoció como agente causal al hongo fitopatógeno *Chondrostereum purpureum*, sin embargo, en los últimos años y junto con el aumento de la incidencia y severidad de esta enfermedad, se han observado estructuras reproductivas de diferentes tipos de hongos basidiomycotina.

En prospecciones realizadas por esta investigación, en cuatro huertos de kiwi de las principales zonas productoras de la VII región (Curicó, Talca y Linares) se detectó la presencia de esta enfermedad afectando con una incidencia de entre 6 a 60% en los diferentes huertos. Además, asociados a los síntomas, se encontraron estructuras reproductivas de cinco tipos diferentes de hongos basidiomycota, los cuales, luego de su aislación, lograron crecer *in vitro* en distintos medios de cultivo: tanto selectivos como específicos (utilizando madera de kiwi como único sustrato), se logró identificar tres de ellos como: *Bjerkandera adusta*, *Schizophyllum commune* y *Phellinus* sp. no encontrándose la presencia de *Ch. purpureum* en ninguno de los huertos prospectados. Tanto estos hongos, como los no identificados fueron inhibidos completamente por la acción parasítica de cepas de *Trichoderma* spp. pudiéndose utilizar como posible control biológico para esta enfermedad.

## ABSTRACT

The causal agents of a kiwifruit disease, which produces foliar necrosis, rapid dead arms and plant decline, were investigated at three locations, Curicó, Talca and Linares, in the VII Region of Chile. For this, several kiwifruit orchards were visited both during June 2001 and January 2002, and the incidence of the disease was measured in each of them. Also, wood samples of affected arms were collected and if present, basidiocarps were removed with the basal wood attached to them at each site. At the Plant Pathology Lab, the wood samples were cultivated in a 2% malt extract agar and incubated at 22°C until pure colonies were obtained. Later, a 7-mm of micelial plug was cultivated in a 2% malt extract agar, agar supplemented with 6% kiwifruit wood sawdust, and agar supplemented with a mixture of malt extract and kiwifruit wood sawdust. Then, they were incubated at 22°C for 15 days, and the growth rate of the colony formed was registered. Basidiocarps were categorized in different groups according their morphological characteristics and identified based in taxonomical literature. The disease incidence ranged 6 to 60%, being greater at the kiwifruit orchards located in Talca. Based in the basidiocarps found associated to dead arms in kiwifruit plants, the fungi *Bjerkandera adusta*, *Shyzyphyllum commune* and *Phellinus* sp. were possible to be identified, however two different groups still remain unknown. The five groups obtained, were able to colonize and growth in malt extract and woody kiwifruit sawdust agar, without any significant difference. Native strains of *Trichoderma harzianum* (Soto strain) and *T. longibrachiatum* (Queule strain) were able to compete successfully with mycelia of the five groups, when dual cultures were assessed. Therefore, the fungi found associated with dead arms in kiwifruit belong to the Basidiomycota class and have been detected in similar diseases occurring at other fruit plants.