

# Botrytis prunorum Associated to Vitis vinifera Blossom Blight in Chile

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## Abstract

Table grapes are highly susceptible to *Botrytis cinerea* infections during the bloom period. After reaching the flower development stage, *B. cinerea* remains quiescent until berry ripening or gives rise to blossom blight under specific climate conditions. A research study was conducted on the Chilean Central Valley during the 2018-2019 growing season. Flowers of *Vitis vinifera* cv. Thompson Seedless were collected and *B. cinerea* was isolated together to a second and morphologically different species, characterized by white mycelium and low to no sporulation (11.4% of total isolates). Three randomly selected isolates within this population were genetically examined and identified as *Botrytis prunorum* based on a phylogenetic multilocus approach using partial regions of genes RPB2, HSP60, and G3PDH or NEP1 and NEP2. Pathogenicity tests showed that *B. prunorum* infects and causes wilting in healthy table grape flowers. *B. prunorum* isolates were able to infect Thompson Seedless berries, inducing lesions between 13.11 and 41.53% with respect to the lesion diameter generated by *B. cinerea* B05.10. The fungicide sensitivity was evaluated. The three genetically characterized isolates were sensitive to boscalid and to cyprodinil/fludioxonil mixture with a mean EC50 value of 5.5 mg/ml and 0.065 mg/ml, respectively. However, loss of sensitivity to fenhexamid was determined, with a mean EC50 value of 5.13 mg/ml. Our understanding about blossom blight in *V. vinifera* has been limited to *B. cinerea*. Here we associated *B. prunorum* as a second causal agent of this disease in Chile. This data represents a first approach to the epidemiological characteristics of *B. prunorum* associated with blossomblight in table grapes.

## Keywords

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