

RESUMEN

La Antracnosis del olivo, causada por *Colletotrichum* spp., es la enfermedad mas importante de la aceituna y la que mayor impacto tiene sobre la calidad del aceite. En general, en cada zona productora se ha identificado una especie dominante de *Colletotrichum* y varias especies secundarias como causantes de esta enfermedad. Por ejemplo, *C. godetiae*, es dominante en España; mientras *C. nymphaeae* predomina en Portugal. Ello puede deberse a diferencias en la poblacion original del patogeno en cada zona de produccion, o podria estar asociado a la especializacion patogenica sobre el cultivar mayoritario, a la adaptacion a las condiciones climaticas, o a una mayor capacidad competitiva. El objetivo de este trabajo fue caracterizar la capacidad competitiva de *C. godetiae* y *C. nymphaeae*. Para ello se estudio la competencia entre ambas especies en medios de cultivo PDA (Potato Dextrose Agar) y PDA diluido a 20 oC mediante la cuantificacion periodica del numero de colonias de cada cepa sembradas a distintas proporciones en placas de las cuales se extrajo y resembró el inóculo sucesivas veces. Además, se evaluó la severidad de síntomas generada por cada especie en aceitunas de los cvs. Hojiblanca y Galega vulgar a 15, 20 y 25 oC. Finalmente, se estudio la capacidad de supervivencia de ambas especies en hoja. En placa de Petri, *C. godetiae* desplazo a *C. nymphaeae* incluso a baja proporción de inóculo inicial (5:95%, respectivamente). El cv. Hojiblanca fue significativamente mas susceptible a ambas especies que 'Galega vulgar'. Las especies *C. godetiae* y *C. nymphaeae* mostraron una virulencia similar en las aceitunas de ambos cultivares, no observandose interacción especie²⁷ cultivar. En aceitunas coinoculadas con ambas especies, *C. godetiae* mostro mayor capacidad de competencia que *C. nymphaeae*. Finalmente, se comprobó que ambas especies muestran similar capacidad de supervivencia en hojas de olivo.

Palabras clave: Antracnosis, *Colletotrichum*, olivo, capacidad competitiva

ABSTRACT

Olive Anthracnose, caused by *Colletotrichum* spp., is the most critical fruit disease of olives and impacts highly in oil quality. Overall, in each olive growing region, a dominant species of *Colletotrichum*, and some secondary

species of this genus, have been identified as causal agents of Anthracnose. For example, *C. godetiae*, dominates in Spain, while *C. nymphaeae* predominates in Portugal. This situation may be due to differences in the original population of the pathogen between each olive-growing area, or it could be associated with pathogenic specialization on the majority cultivar, adaptation to climatic conditions, or the possession of higher competitive ability. The main goal of this research work was to characterize the competitive capacity of *C. godetiae* and *C. nymphaeae* in culture media and olive fruits and leaves. The competition between both species was studied in the PDA (Potato Dextrose Agar) and diluted-PDA at 20 °C by periodically quantifying the number of colonies of each isolate, which were cultured at different spore proportions. Subsequently, *Colletotrichum* spores were extracted from colonies in medium and re-cultured successive times. Besides, the severity of symptoms generated by each species on 'Galega vulgar' and 'Hojiblanca' fruits incubated at 15, 20, and 25 °C was evaluated. Finally, we studied the capacity of both species to survive in inoculated leaves. The species *C. godetiae* displaced *C. nymphaeae* in both culture media (PDA and diluted-PDA) even at a low initial inoculum rate (5:95%, respectively). The cv. Hojiblanca was significantly more susceptible to both species than 'Galega vulgar'. The species *C. godetiae* and *C. nymphaeae* showed a similar virulence in the olive fruits of both cultivars, and no important interaction pathogen species-olive cultivar was observed. When olive fruits were coinoculated with both species, *C. godetiae* showed higher competition capacity than *C. nymphaeae*. Finally, it was found that both species show similar survival capacity in olive leaves.

Key words Anthracnose, *Colletotrichum*, olive, competitive capacity