

**FACTORS AFFECTING RESISTANCE OF TWO OLIVE CULTIVARS
TO LEAF SPOT DISEASE IN THE NORTH WEST OF TUNISIA**

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ABSTRACT

Evaluation of the incidence of the leaf spot disease caused by the biotrophic pathogen *Fusicladium oleagineum* on two olive cultivars (*Olea europaea* L.) was carried out during six years (2009/2015) in groves located at Touiref (North West of Tunisia). The studies focused on Meski and Chetoui cultivars. The evaluated foliar incidence of disease was analyzed in relationship with some factors. Disease incidence varied greatly among the two cultivars submitted to similar conditions. Meski is the susceptible olive cultivar grown but Chetoui is more resistant to these pathogen infections ($R^2 = 0.94$). The obtained results revealed that disease incidence was correlated with the height of the trees ($R^2 = 0.80$), with the direction ($R^2 = 0.82$), with the leaf age ($R^2 = 0.78$) and the relative humidity ($R^2 = 0.91$). During our studies, we were attempted to collect the fallen leaves under trees to survey the development of the fungus *Fusicladium oleagineum*, but no sexual form was found.

Keywords: Disease incidence, *Fusicladium oleagineum*, olive, resistant, susceptible.