



Journal of Applied Biosciences 174: 18093 – 18102
ISSN 1997-5902

Survey and evaluation of *Olive Leaf Spot* caused by *Venturia oleaginea* (Castagne) Rossman & Crous (2015) on olive trees in Algeria

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Submitted on 4th May 2022. Published online at www.m.elewa.org/journals/ on 30th June 2022
<https://doi.org/10.35759/JABs.174.2>

ABSTRACT

Objective: *Olive Leaf Spot* fungal disease caused by *Venturia oleaginea* (Castagne) Rossman & Crous (2015). It has a significant negative impact on certain olive growing regions of Algeria.

Methodology and results: A survey was conducted from 2013 to 2015 during periods at risk of contamination (i.e. autumn, winter and early spring) to map the geographical distribution of this pathogen. The results obtained showed that *Olive Leaf Spot* is present in all olive- growing regions in Algeria but not in all states. Twenty seven (27) states out of the 35 surveyed states were reported to be infested, with a total of 1163 infected orchards out of the 1696 orchards surveyed, and a percentage of infection also varying from one region to another and depending on the year. The results of the statistical analyses based on Tukey HSD test at $P < 0.05$ show very highly significant differences between the Wilayas affected. The western regions are very highly significant, whereas in the east the infection is less important. This difference may be explained by the more favourable climatic conditions, the dominance of a single olive variety “Sigoise” which seems to be more susceptible to the disease and the lack of a technical itinerary.

Conclusion and application of results: This survey is the first on the situation of olive leaf spot in the olive growing regions located in the East, West and Center of the country, allowing to map the distribution of this pathogen, and the use of resistant varieties as biological control agents in the treatment of OLS disease in Algeria.

Keywords: Infected, *Venturia oleaginea*, Olive Leaf Spot, survey, variety.