

CULTURE CONDITIONS OF *STEMPHYLIUM LYCOPERSICI* IMPACTS ISOLATES VIRULENCE

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Stemphylium solani, *S. lycopersici* and *S. botryosum* are the causal agents of tomato grey leaf spot, a disease with high incidence and severity within tomato production areas that has a relevant economic impact. Necrotrophic fungi of the genus *Stemphylium* synthesize secondary metabolites including host (HSTs) and non-host specific toxins (*non*-HSTs). The purpose is to study the metabolites synthesized and secreted by *S. lycopersici* isolate CIDEFI-216 when it is cultured under different conditions and their effect on plant tissue. CIDEFI-216 was grown on media such as V8, potato dextrose agar (PDA) and potato dextrose broth alone or amended with a filtered macerate of a susceptible tomato hybrid leaves (PDB and PDBs). After 14 days of growth, cultures were lyophilized, mixed with water, sonicated for 3 hours and like liquid broth cultures filtered (0.22 μ m). Leaflets of tomato and leaves of pepper were placed on water-soaked filter paper in plastic Petri dishes. Then they were wounded with a needle and treated with extracts as well as filtered supernatants. Extracts of V8 grown cultures provoked larger lesions on tomato leaflets than those of PDA grown cultures after five days of incubation. However, the necrotrophic effect was larger when leaflets were treated with extracts from PDB grown cultures. On pepper leaves typical symptoms of grey leaf spot only developed with the supernatant of cultures grown on V8 media. Evidently, CIDEFI-216 synthesize and secrete HSTs and *non*-HSTs, which is dependent on the culture conditions as well as the presence of a macerate of leaves.

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