

SURVIVAL and HOST RANGE OF ISOLATES OF *Phytophthora capsici**

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Abstract

Phytophthora capsici was originally isolated from pepper in New Mexico and described by Leonian in 1922. Although the species have been isolated from different plant species in different parts of Iran, there is scanty information regarding its diversity, host range, survival structure and mating types. The present study was an attempt to determine host range of this pathogen especially among woody plants. The optimum temperature for growth, frequency of mating types and formation of chlamydospore *in vitro* and *in vivo* was also determined using 20 isolates from different plant species including squash, pepper and tomato. The results showed that both mating types of the pathogen with almost equal frequency were present among isolates. The pathogen abundantly formed chlamydospores on carrot agar and in crown and roots of squash. Among six woody plants inoculated, almond, apricot and pistachio cultivar Sarakhs were highly susceptible to *P. capsici* but hazelnut, kiwi and loquat were not infected. All isolates of *P. capsici* used were pathogenic to squash but pepper was resistant to most isolates.

Keywords: *Phytophthora capsici*., Mating type, Chlamydospore, Host range, Woody plants.

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