

Enzenbacher, T.B. and Hausbeck, M.K. 2010. Isolates of *Phytophthora capsici* differ in their ability to cause disease on cucurbit fruits. *Phytopathology* 100:S34.

Studies were undertaken to elucidate the differences in disease response among eight types of cucurbit fruits and differences in virulence among five unique isolates of *Phytophthora capsici*. Isolates differed in mating type, mefenoxam sensitivity, and host origin. Unwounded, summer squash types and cucumbers were inoculated with a 5-mm plug of mycelia and sporangia from a 5-to 7-day-old culture and were incubated at room temperature and high relative humidity under laboratory conditions. Hard squash types were wounded with a sterile probe 3 to 5 mm below the fruit surface before being inoculated and exposed to high humidity in a greenhouse environment. Fruits were measured for lesion and pathogen sporulation diameter (cm) and evaluated for sporulation density using a visual scale. All *P. capsici* isolates used incited disease on cucurbit fruit with significant differences observed among the isolates and fruit type tested. This study suggests that multiple isolates should be utilized in future cucurbit germplasm screenings for *P. capsici* fruit resistance.