

Phenotyping Peanut Resistance to *Nothopassalora personata* prior to Penetration

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Nothopassalora personata is the fungal causative agent of late leaf spot in peanut. This disease can cause premature defoliation and yield loss if not controlled. Plant breeders have created several peanut cultivars with high levels of pathogen resistance using introgressive hybridization of cultivated peanut (*Arachis hypogaea*) and wild peanut species. The genotypes tested in this study are crosses between TifNV-High O/L and IAC322, each with different introgressions from *A. cardenasii*. This study assessed whether resistance associated with the introgressions A02 top, A02 bottom, A03 bottom, or A02 top + A03 bottom, begins before penetration. Using a detached leaf assay, leaves of each parent plant, a related susceptible genotype (Runner 866), and the lines with the selected introgressions, were inoculated with conidia of *N. personata* and maintained under optimal conditions for infections. The percentage of spores germinating and percentage of spores penetrating stoma will be measured over time, as will incubation period and lesion development. The results will be used to see if one or more introgressions affect the pathogen's ability to penetrate the leaf surface.