

Visualizing Early Events of Pathogenesis of *Phoma medicaginis* var. *medicaginis* on alfalfa (*Medicago sativa* L.)

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Early events, such as spore adhesion, germination, and appressorium formation are critical steps before infection can occur. This study describes the pathogenesis process of *Phoma medicaginis* var. *medicaginis*, the causal agent of spring black stem and leaf spot on alfalfa (*Medicago sativa* L.), using scanning electron microscopy (SEM). In addition, preliminary studies using light microscopy and staining with trypan blue showed differences in the rate of colonization of the fungus on susceptible and moderately resistant alfalfa genotypes. Fungal penetration and invasion of the epidermis tissue are faster in the susceptible genotype, while few hyphae are seen in the epidermis of the more resistant plant.