SEXUAL DEVELOPMENT OF *STEMPHYLIUM LYCOPERSICI.*

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In filamentous ascomycetes, self-sterility, as well as fertility, depend on the mating-type (MAT) locus, whose genes code transcription factors, peptide pheromones, and their corresponding receptors. Heterothallism (self-sterility) occurs between two fungal strains with compatible mating types. On the contrary, homothallism refers to a self-fertile organism with a complete sexual cycle. Heterothallic species are characterized by the presence in each isolate of only one idiomorph, either MAT1-1 or MAT1-2, while both types are present in homothallic species. While some *Stemphylium* species are homothallic others are heterothallic. The teleomorphic state of *Stemphylium* phytopathogenic filamentous ascomycete fungi has not been described yet. Here we identified the idiomorphs within a collection of isolates of *S. lycopersici*. A set of specific primers aimed at amplifying the MAT locus was design based on available sequences of representatives of *Stemphylium* (AY335164.1, AY340940.1 and LGLR01000402.1-TW65_08925). Among 20 *S. lycopersici* isolates we found that each contained only one idiomorph. While 85% belonged to the MAT1-1 type and the remaining 15% were of the Mat1-2 type. The isolates idiomorph were unrelated with the place and plant of isolation, suggesting that in natural habitats the idiomorphs are together. The MAT1-1 idiomorph prevalence over MAT1-2 might explain why the teleomorphic state, has not been found yet. Future studies *in-vitro* might be performed to evaluate the occurrence of the sexual cycle of *S. lycopersici.*

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