Temporal progress of white rot in garlic genotypes in Rio Paranaíba County, MG, Brazil

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White rot, caused by Sclerotium cepivorum, is a limiting factor for garlic production worldwide, causing up to 100% losses in individual fields. The fungus produce microsclerotia, which survive in the soil for over a decade, and there is no single effective means of control. The objective of this work was to evaluate white rot temporal progress in 20 garlic genotypes in Rio Paranaíba, MG, a leading garlic production region in Brazil. One field experiment was set up from May to October 2016, in the COOPADAP experimental field, naturally infested with *S. cepivorum microsclerotia*. Garlic was planted to soil beds, following standard cultivation practices. The experiment was irrigated by central-pivot. A randomized complete block design with five replicat es and 20 treatments (corresponding to the 20 genotypes) was employed. Garlic materials included genetically divergent materials, cultivated varieties and plant introductions, from distinct world geographic regions, and encompassing early, intermediate and late cycle genotypes. Prior to planting, microsclerotia density was determined by collecting three soil sub-samples per plot. The homogenized composite sample was examined as described. Initial inoculum densities were fairly uniform, from nine to 35.8 microsclerotia per 100 cm^3 of soil, with a mean of 15 microsclerotia per 100 cm^3 of soil. Initial plant stand was determined 27 days after planting (DAP), and the number of dead plants was quantified in three evaluations performed at 90, 108 and 148 DAP. Genotypes were separated by the number of surviving plants, by the Scott-Knott test. Environmental conditions were favorable to disease development. Genotypes were assembled in three groups: (i) >75% surviving plants; (ii) > 60% e (iii) > 40%. The lowest percentage of dead plants was found in genotype UO 73, even if it was planted on plots with the highest inoculum density (35.8 microsclerotia/100 cm3). Results showed no significant correlation between inoculum density levels and the percentage of surviving plants. Moreover, data revealed that materials differ as to their reaction to the disease, and indicated that some genotypes presented partial white rot resistance. These may be valuable for garlic breeding or management programs.