Search for sources of resistance to brown rot in Brazilian genotypes of peach

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The brown rot caused by *Monilinia Fructicola* is the most important disease in *Prunus* species in places of hot and humid climate. The development of resistant cultivars is a priority of breeding programs located in humid regions. However, very few sources of good resistance level are known in spite of all the efforts. This work aimed to evaluate the reaction of peach genotypes to *M. fructicola*. Fruit at firm maturation stage (harvest point) of 174 genotypes, including, cultivars, advanced selections and seedlings, were selected for absence of apparent damage and/or infection. These fruits were dipped for 1 min in 70% alcohol, followed by a 5 min immersion in a 0,5% solution of NaClO, after a 10 min rest period they were washed in distilled water an placed in plastic transparent boxes (24,0 x 23,0 x 10,0 cm), lined with moistened filter paper. The inoculation was made, by deposition of a 10μL drop of suspension of 25,000 conidia/mL^{-1} of the pathogen using an inoculation syringe. Inoculated fruits were incubated at 25$^{\pm}$1 °C and 75% relative humidity for 72 hours. The work was conducted during the 2012/13 season, using a completely randomized design, with two replication of five fruit per plot. After 72 hours, the samples were evaluated for disease incidence (% of diseased fruits) and disease severity (average diameter of lesions and sporulation). The results were compared with the average lesion of resistant check cv. Bolinha, 0.9 cm (σ=0.9). The seedlings C. 2008.174.12 (Cascata 1062 x Marfim), C.2006.45.4 (Olimpia x SB 26), C.2009. 77.14 (Cascata 1510 x Libra), C.2008.161.126 and C.2008. 161.37 (Cascata 1062 x Maciel), C.2009. 173.33 and C.2009. 173.74 [(Olimpia x SB 26) F2] C. 2006 198.71 (Jubileu x Fu. Sou. Tao) and cv. Sensação showed the same level of susceptibility to brown rot than cv. Bolinha.

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