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Reaction of Sweet Potato Cultivars to Foot-Rot (*Plenodomus destruens*)

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Sweet potato foot-rot (*Plenodomus destruens*) is considered one of the most destructive diseases. The pathogen causes necrosis in the stems and root rot, leading to plant death. The aim of this study was to evaluate the reaction of cultivars of sweet potato to *P. destruens*, using three inoculation methods. The seedlings were planted in pots and inoculated 60 days later, using a suspension of 1.5×10^6 conidia.mL⁻¹. The following methods were tested: deposition of 3.0 mL suspension in the soil near to stem of plant; puncture stem, with the deposition of a drop above the first node, and the spraying of stem. The plants were assessed 60 days after inoculation. The experiment was performed in factorial design with three inoculation methods \times 6 cultivars, in a randomized block design, with five replications and six plants. There were no significant differences among cultivars for the spraying method, which presented incidences of 3.3% to 23.3%. With the stem puncture method, the Princess cultivar presented incidence of 3.7%, followed by Brazlândia Roxa, Coquinho, Beauregard, Brazlândia Rosada and Brazlândia Branca, with incidences of 30.0%, 31.7%, 36.7%, 43.3%, and 61.4%, respectively. On inoculation carried in soil, the cultivars Coquinho and Brazlândia Rosada did not differ and they presented the lowest incidence: 38.3% and 40.5%, respectively. Princess, Brazlândia Rosada, Beauregard and Brazlândia Branca also did not differ among themselves and reported incidences of 60.0%, 66.7%, 73.3%, and 88.1%, respectively. As noted, the inoculation in soil was the only one that presented a satisfactory performance, as incidence was greater than 80% in Brazlândia Branca cultivar, used with standard susceptibility.

Keywords - inoculation methods, resistance