

2017 APS Annual Meeting

AUGUST 5–9 • SAN ANTONIO, TEXAS

**274-P: Reaction of sweet potato genotypes to the root-knot nematode
(*Meloidogyne javanica*)**

Monday, August 07, 2017**03:00 PM - 04:00 PM**📍 *Henry B. Gonzalez Convention Center - Exhibit Hall 1*

One of the main obstacles to food production in many developing countries is the damage caused by nematodes, especially those forming galls, belonging to the genus *Meloidogyne*. Symptoms are associated to reduction of fibrous roots, plant growth and yield loss. The objective of this work was to characterize the resistance level of one Embrapa pre-commercial genotype of sweet potato to the root-knot nematode *Meloidogyne javanica*. In addition to the pre-commercial clone four different sweet potato commercial cultivars, one resistant and one susceptible tomato controls, Nemadoro and Rutgers, respectively, were used. The experiment was installed in 0.3 L plastic pots and conducted under greenhouse conditions on a completely randomized design, with six replications. Plants were evaluated 47 days after soil infestation. The classification of resistance levels was performed according to the Reproduction Factor (RF), gall index (GI), egg mass index (IMO) and number of eggs per gram of root (NEGR). *M. javanica* presented low aggressiveness in the evaluated genotypes but the pattern of the control results were consistent with previous evaluations. The pre-commercial clone was statistically different from the susceptible tomato cultivar in all parameters evaluated and was not statistically different to the resistant tomato control. In addition, this new sweet potato clone also was more resistant than its direct agronomic control, the sweet potato Beauregard.

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