



Hatching Effects of *Solanum sisymbriifolium* root exudates on *Potato Cyst Nematodes*

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Abstract

Potato cyst nematodes (PCN), *Globodera* spp., are quarantine organisms that occur in several countries and accounts for world losses of more than 12% of crop yield. The control measures available are insufficient and many are not sustainable and not environmental friendly. The development of biological nematicides from trap crops can be an alternative. Several studies have shown that many plants of the *Solanaceae* family have the ability to produce compounds promoters of hatching. *Solanum sisymbriifolium* is known to be a promising trap crop for PCN but further information is still required. The main goal of this research was to evaluate the hatching effects of root exudates from four cultivars (Pion, Sharp, Sis 4004 and Sis 6001) of *S. sisymbriifolium* on *G. rostochiensis* Portuguese isolates. The root exudates were obtained by successive soil leaching and tested on hatching of second-stage juveniles (J2), with daily counts, for a maximum period of 30 days. The potato (*S. tuberosum* cv. Désirée) root exsudate was used as control. Five replicates with 15 cysts each were done for each exsudate. The hatching in *S. sisymbriifolium* exsudates (around 1%) was lower in all cultivars than in the potato exsudate (around 5%). More biological assays are being conducted with other PCN isolates and the results will be presented and discussed at the conference.