
Conference Presentation

The effect of ultra high-diluted drugs on plant-nematode interaction

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Abstract

Among plant pathogens, sedentary endoparasitic nematodes are one of the most damaging pests in global agriculture. Within this group, root-knot nematodes (RKN) *Meloidogyne* spp. is one of the most specialized phytoparasitic nematodes according to the complexity of the induced feeding sites. These phytopathogenic worms are highly resistant due to the large physiological variability, therefore difficult to fight against. The traditional methods of control, such as the crop rotation and the use of resistant varieties by classical selection are not always effective, time consuming and costly. The modern methods including the application of genetically modified crops (GMO), synthetic pesticides and bionematicides could be dangerous for human health and ecologically hazardous (Thomason, 1987; Malatesta *et al.* 2002a,b, 2008a,b; Spiroux de Vendômois *et al.*, 2010; Seralini *et al.*, 2012). Therefore, alternative routes must be taken in order to obtain plants resistant to nematodes. The ultra high dilutions (HDs) approach is largely in charge to dissect the infective process. HDs method is eco-friendly, low cost and leaves no residue in the environment. The classical phytopathological methods combined with modern microscopy approaches allowed to characterize the effect of different HD drugs on compatible interaction between model plant *Arabidopsis thaliana* and root-knot nematodes *Meloidogyne incognita*.

The work is under consideration for publication elsewhere.

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