

Evaluation of the Susceptibility of Different Citrus Rootstocks to Burrowing Nematodes (Radopholus similis)

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Abstract

Citrus greening or huanglongbing is not the only concern for citrus growers. Underground pests such as plant parasitic nematodes and root weevils are endemic in Florida and of great concern. Rootstock programs produce many new rootstocks that may contribute to mitigating huanglongbing. Evaluating the newly produced rootstocks for their susceptibility to underground pests is extremely important before releasing them to growers. Burrowing nematodes (*Radopholus similis*) are tropical species with a wide range of crop hosts; however, a race known only in Florida is the only burrowing nematode that attacks citrus, causing the disease known as "spreading decline." We established a strategy to evaluate the citrus rootstocks' susceptibility to burrowing nematodes. Our methods included challenging the rootstock with the nematode following by morphological, histological and metabolomic studies. Information from this work will certainly assist in making useful recommendation about these rootstocks to growers.

The abstract was presented at the 2021 FSHS Annual Meeting.

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