

Soil Technologies Corp.
Research and Development Department



Research Report

Title: Control of Nematode *T. Semipenetrans* on Olive Tree Roots

Location: Arica, Chile

Principal Investigators: Dr. Mauricio Jimenez, Universidad de Tarapaca

Crop: Olive Tree

Date: 2002

Abstract:

The purpose of this trial was to evaluate the effect of the soil/root microbial inoculant, Intercept¹, on the root mass of olive trees infected with the nematode *Tylenchulus Semipenetrans*. Three experimental groups were established: one group was treated with Intercept, another group treated with Nematicur² and a final untreated control group. After treatments were administered, the root masses of the olive trees were measured. Olive trees treated with Intercept demonstrated the largest root mass, which may indicate a potential for Intercept as a protective measure against *T. Semipenetrans* infestations.

Methods:

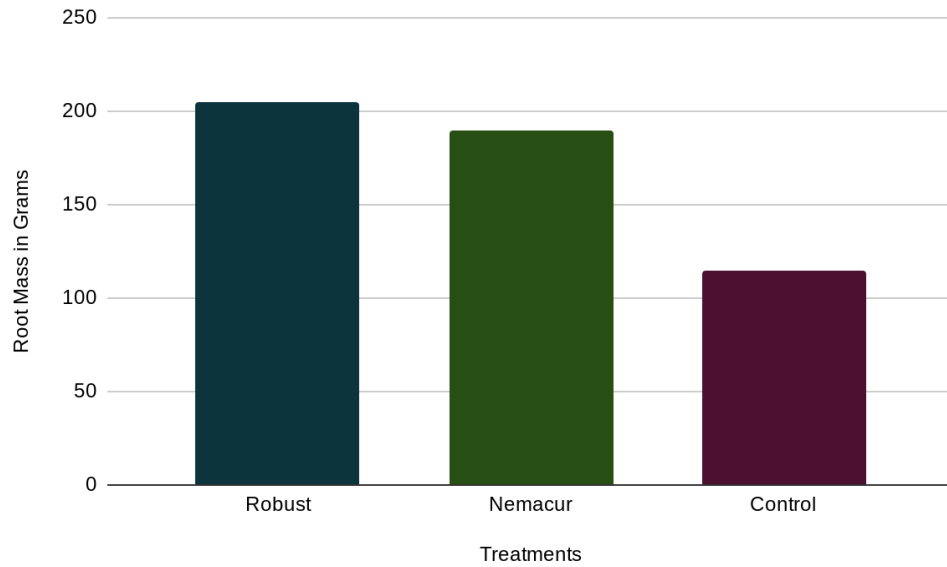
Three experimental groups were established: one group was treated with Intercept (0.5L in 380L of water), another group treated with Nematicur (30L/Ha), and a control treatment. The tests were done as randomized blocks with a total of 4 blocks with 4 repetitions in each block. From each tree, 12 soil core samples of 250ml were collected 60 days after treatment, at a distance of 20cm, 40cm, and 60cm from the trunk and the olive tree's root mass were measured and compared.

Results:

The biological nematicide, Intercept, produced larger root mass on treated olive trees when compared to Nematicur and an untreated control. Results of all treatments are demonstrated in Graph 1 below.

¹Intercept is an OMRI listed soil microbial inoculant manufactured by Soil Technologies Corp., Fairfield, IA, USA.

²Nematicure (Fenamiphos) is a chemical nematicide CAS # 22224-92-6



Graph 1: Average root mass at 60 days after treatment (*Robust is now called Intercept)

Conclusions:

Olive trees treated with Intercept demonstrated the largest root mass, which may indicate a potential for Intercept as a protective measure against *T. Semipenetrans* infestations. Trees treated with NemaCur had the second largest root mass with the control group having the smallest.