



BOOK OF ABSTRACTS

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ORIGINAL
ABSTRACT

Title	Phytophthora cinnamomi as a stress factor of chestnut roots and effect of phosphite on their protection
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PRESENTATION
TYPE

- Oral
 Poster

Phytophthora cinnamomi is a soil born pathogen that causes crown and root rot of many host species. Its growth and reproduction occurs entirely in the soil and zoospores preferentially attack feeder roots leading to the dead of host plants. Chestnut (*Castanea sativa*) is severely affected by *P. cinnamomi* and Ink disease syndrome appear. Control strategies must include all control means related to soil environment, pathogen dynamics and host resistance. It has been shown that, the anionic form of phosphonic acid phosphite, controls many Phytophthora diseases. In this work we studied the effect of *P. cinnamomi* on roots of chestnut and the effect of phosphite to protect roots from the pathogen. Pots, were filled with compost previously inoculated with *P. cinnamomi* and planted with one-year old chestnut seedlings. The seedlings were growth in a glasshouse for four months. The total number of seedlings we split in two groups and submitted to two treatments: 1) water spraying; 2) Atlante Plus, (30 % phosphite) 3 ml/L spraying. Total height, crown diameter, root length, root rot length, visual above ground symptoms and above and below biomass were evaluated. Statically significant differences between treatments were obtained in a large number of the studied variables. Above and below biomass, total root length and total root rot length are also important variables to evaluate stress factor of root system related with soil borne parasites and to study control means and management.

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