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Baiting bioassays and DNA-PCR based methods for detection of *Phytophthora* species associated with Chestnut Ink Disease from soil, root tissues and water

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Chestnut Ink Disease (CID) is a destructive and a lethal disease of sweet chestnut (*Castanea sativa* Mill.) that is associated with different soil borne *Phytophthora* species. CID is very difficult to control because cultural and chemical measures provide limited effects and didn't prevent disease spread. The aim of this study was to validate different methodologies used for *Phytophthora* detection from soil, symptomatic vegetal tissues and water. Baiting technics bioassays and DNA-PCR assays based on the multicopy ITS region was compared for method validation. Efficiency, specificity and time response span were the parameters evaluated and compared to validate proposed objectives. Baiting bioassays are very useful when the objective is obtaining isolates of different *Phytophthora* species and DNA-PCR assays are valuable and basic requisites for integrated management programs for evaluating the applied controls measures to minimize impacts and control the disease

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