Interlaboratory comparison and validation of detection methods for phytoplasmas of phytosanitary concern in European orchards (FRUITPHYTOINTERLAB)

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Funding

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Research consortium

Austria: AGES; Belgium: CRA-W, ILVO; Bulgaria: CLPQ; Czech Republic: State Phytosanitary Administration-Diagnostics; Denmark: Aarhus University; Germany: JKI; Italy: DiSTA, CRA-PAV, Lab Fitop Fon Minoprio; Netherlands: PPS; Norway: Bioforsk; Poland: Main Inspectorate of Plant Health and Seed Service; Portugal: INRB/L-INIA; Slovakia: UKSUP; Slovenia: NIB; Spain: DAAM, IRTA, UPVLC; Suisse: ACW; Turkey: GDAR-PPRI; UK: Fera.

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Goals

To optimise diagnostic methods for the detection of orchard phytoplasmas (Candidatus Phytoplasma mali, Ca. P. pyri, Ca. P. prunorum) in European plant health diagnostic laboratories and partner laboratories of the COST action “Integrated Management of Phytoplasma Epidemics in Different Crop Systems FA0807”.

Objectives

To carry out ring-testing trials to validate test methods for the detection of phytoplasmas from orchards (e.g.´Candidatus´ species - Phytoplasma mali, Phytoplasma pyri, Phytoplasma prunorum) in symptomatic and asymptomatic plants from infected orchards. Including:

- nested-PCR
- real-time PCR

The topics of this project are complementary to the activities of the COST action “Integrated Management of Phytoplasma Epidemics in Different Crop Systems FA0807”.

Key outputs and results

The results obtained in this project showed that reliable and validated laboratory protocols are available for the detection of phytoplasmas in symptomatic and asymptomatic plants from infected orchards. The protocols (nested and real time PCR) complement each other, and can be used to comply with the official testing programs.