

Evaluation of factors determining distribution, impact, detection and characterization of apple proliferation and other fruit tree phytoplasmas in the European Community (APOPHYT)



Funding

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Research consortium

ACW-CH, AGES-AT, JKI-DE, IT-CRA-PAV, NO-BIOFORSK, BE-CRA-W, CZ-VSUO, BE-ILVO

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Objectives

- To assess levels of latent infections in stocks and nurseries
- To assess the transmission of apple proliferation, pear decline and European stone fruit yellow
- To screen strain collections and nuclear stock on the presence of virulent apple proliferation strains and the occurrence of multiple infections
- To monitor the dynamics of strains in infected plants
- To evaluate uniformly infected plant materials for symptom expression at different locations
- To develop a LAMP procedure to detect fruit tree phytoplasma with high sensitivity and specificity for routine application
- To monitor the occurrence of potential vectors and assessment of the vector host plant interactions

Goals

To provide important results for pest risk analysis and for future policy decisions aiming at the prevention of phytoplasma spreading in significant fruit crops

Key outputs and results

- Information to the plant inspection services and authorities:
 PPOs are informed about relevant information concerning (i) the infection status in nurseries and nuclear stocks, (ii) the most appropriate diagnostic and sampling methods, (iii) the differentiated symptom expressions, and (iv) the vector host plant interactions.
- Exchanges between partners and integration of the results:
 The partner JKI-OW will disseminate information on the hflB/SSCP method to differentiate virulent and avirulent *Ca. P. mali* strains. The partner will circulate information on relevant primers. The LAMP-PCR technique developed by the main partners will be passed on to interested partners. An exchange of staff for training purposes is intended.
- Improving applicable knowledge and know-how for stakeholders (inspectors, producers, etc.):
 Scientific and technological knowledge will be disseminated in national languages through technical articles and press releases or through information events in the different partner countries. If needed, excursions and/or training courses can be held for those interested.