Fast detection methods for quarantine Tephritidae (TEPHRIFADE)

Euphresco

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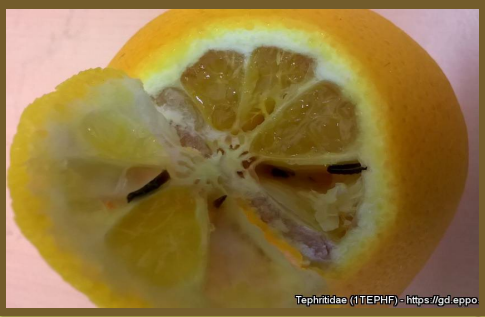

Funding

Mixed funding mechanism. Each funder only pays for the participation of their own national researchers. Total funding € 346 000

Research consortium

FPS (BE), AGES (AT), UZBB (BA) CFIA (CA), JKI (DE), MOAG (IL), NVWA (NL), MPI (NZ), MAFF (SI), SBA (SE), APHIS (US), VOLCANI (IL), UNIBZ (IT), UAC (PT), ICDPP (RO)

Contact information

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Objectives

The main objectives of this project are to: i) compile a list of existing fast diagnostic tests and tests under development, e.g., LAMP and real-time PCR for Tephritidae genera and species; ii) exchange protocols and best practices and organize a test performance study among the project partners to validate and implement the best methods in different laboratories, and harmonize diagnostic protocols and guidelines; iii) collect available DNA sequences from species belonging to the Tephritidae family, in order to identify gaps; iv) collect type species and conduct sequencing experiments to fill-in the identified gaps; and v) map monitoring methods for Tephritidae species.

Goals

Tephritidae is one of the most diverse families of Diptera, with more than 5 000 described species. Amongst the non-European species, 257 species can be considered as potential quarantine pests for the EU.

The project aims to develop and consolidate knowledge on rapid and reliable methods to support monitoring, interception and identification of Tephritidae species and improve the sequence data available for these species in order to prevent their entry and establishment in different regions.

Key outputs and results

The project will:

•Produce an overview of the existing rapid identification methods for Tephritidae species

•Develop comprehensive technical guidelines and diagnostic protocols, including a workflow for morphological/molecular identification

•Make an inventory of available DNA sequence data for Tephritidae species

•Produce an overview of current monitoring methods for Tephritidae species