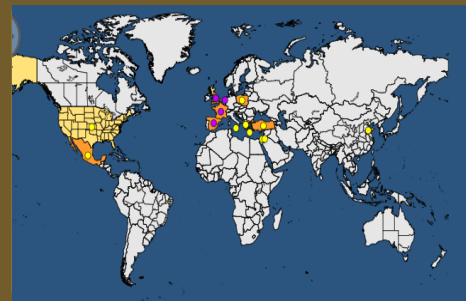


Validation of diagnostic tests for the detection and identification of *Tomato brown rugose fruit virus* in tomato and pepper seeds



Funding

Non-competitive funding mechanism. Each funder only pays for the participation of their own national researchers. Total funding € 169 000

Research consortium

NVWA (NL), AGES (AT), ILVO (BE), BFSA (BG), JKI (DE), ANSES (FR), Defra (GB), HAPIH (HR), MOA (IL), CREA (IT), SENASICA (MX), MPI (NZ), MinPolj (RS), VNIICR (RU), NIB (SI), ANOVE (ES), Agdia (FR), Eurofins (FR), Geves (FR), Hazera (IL), UNIPA (IT), EnzaZaden (NL), Naktuinbouw (NL)

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Goals

Since 2015 various outbreaks of *Tomato Brown Rugose Fruit Virus* (ToBRFV) have been reported from across the globe. Although seed transmission of ToBRFV has not been demonstrated yet, this pathway is expected to play a role in the (global) spread of the virus. The project aims to support monitoring and diagnostic activities on ToBRFV.

Objectives

The main objective of the project is to validate ELISA, RT-PCR and real-time RT-PCR tests for the detection and identification of ToBRFV in seeds of tomato (*Solanum lycopersicum*) and pepper (*Capsicum* spp.).

Six tests will be considered for the test performance study, selected from the list below:

- DAS-ELISA: Agdia (tobamovirus test); DSMZ (ToBRFV test); Loewe (ToBRFV test)
- RT-PCR: Rodríguez-Mendoza *et al.*, 2019; Alkowni *et al.* 2019; Levitzky *et al.*, 2019; Levitzky *et al.*, 2019; Luria *et al.*, 2017; Ling *et al.*, 2019; Panno *et al.*, 2019; Fidan *et al.*, unpublished
- Real-time RT-PCR: ISHI-Veg, 2019; EPPO protocol Menzel and Winter; Panno *et al.*, 2019; Fidan *et al.*, unpublished.

Key outputs and results

The project will allow to produce validation data for the selected tests and will contribute to the development of an harmonised protocol for the detection and identification of ToBRFV in seeds.