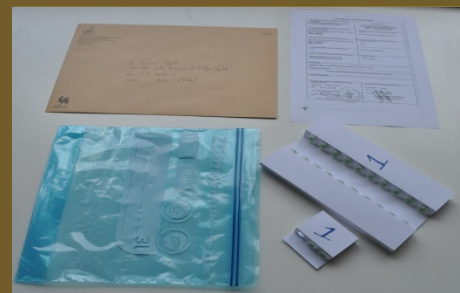


Assessment of the risk posed by ornamentals and tomato seeds infected by Pospiviroids to tomato crops and evaluation of Pospiviroid detection protocols for seed testing in tomato (DEP2)



Funding

Non-competitive funding mechanism. Each funder only pays for the participation of their own national researchers. Total funding € 179,000

Research consortium

CRA-W-BE, ILVO-BE, AGES-AT, CRA-IT, AIS-SI, MAARD-EE, MoA-LT, ANSES-FR

Contact information

Project coordinator: Thibaut Olivier
t.olivier@cra.wallonie.be

Goals

The goals of DEP2 are to assess the risk posed by pospiviroid infected ornamentals and tomato seeds to tomato and potato crops, to evaluate available detection methods for seed testing in tomato and to find efficient disinfection treatment against pospiviroids.

Objectives

The objectives of DEP2 are:

- to assess available generic methods for pospiviroid detection and to setup an interlaboratory test on infected tomato seeds,
- to evaluate the potential routes of transmission from ornamentals to tomatoes through leaf contacts, pollen and bumblebees,
- to evaluate the chemical or physical inactivation of contaminated material which would allow the management of outbreaks and wastes derived therefrom,
- the assessment of seed transmission rate in infected tomatoes.

Key outputs and results

- Evaluation of 4 generic detection methods through a ring test allowed highlighting the strengths and weaknesses of each method.
- Evaluation of different disinfectants allowed demonstrating the inefficacy of the only approved disinfectant for contaminated surfaces in the strictest condition of use. This comparison also allowed proposing a ranking of five commercial virucids according to their efficacy against pospiviroids.
- The transmission of pospiviroid through tomato seeds showed a variable transmission rate depending on tomato variety and pospiviroid species (still underway).