

Interlaboratory test performance study for molecular confirmation of *Ralstonia solanacearum* virulence



Funding

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Research consortium

NVWA (NL), ILVO (BE), CFIA (CA), CISTA (CZ), JKI (DE), NFKSO (HU), CIHEAM (IT), WUR (NL), INIAV (PT), SASA (GB), APHIS (US), AUT (AL), CIP (PE), TAGEM (TR)

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Goals

Disease control is largely dependent on preventive measures and elimination, for which reliable detection and identification methods are indispensable. The overall goal of the project is to support official diagnostics of *Ralstonia solanacearum*. The current diagnostic methods in the annexes of EU Directive 2006/63/CE require a high level of expertise, require high level quarantine premises, and are time consuming given that both pathogen isolation and a bio-assay are obligatory for diagnostic confirmation. This causes high operational costs for National Plant Protection Organisations and affects both potato industry and trade.

Objectives

This first objective of this project is to develop, validate and verify a PCR-based method which targets genes that encode virulence factors of *R. solanacearum*.

The second objective is to validate a loop-mediated isothermal amplification (LAMP) assay for *R. solanacearum*. Verification of the novel method will be done in an interlaboratory Test Performance Study including several EU partners.

Key outputs and results

The project is expected to deliver:

- Lists of potential target genes coding for virulence factors
- Collections of strains to be used for the identification of virulence factors and for the test performance study
- Validated and EU-verified diagnostic tools for detection and confirmation of *Ralstonia solanacearum*.