

# PSTVd and TCDVd in tomato

## Procedure

Seed (3,000)

Samples are soaked overnight with phosphate buffer

Seeds are extracted with grinder

RNA is isolated

RT-Taqman-PCR

Test result:

Positive

Negative

Sequence analysis for identification of the viroid by Plant Protection Service

Potato spindle tuber viroid (PSTVd) and tomato chlorotic dwarf viroid (TCDVd) are important viroids of tomato. Several outbreaks by both viroids have been recorded in various countries; however the primary source of infection generally was not identified. PSTVd is listed as a quarantine organism. A test on tomato seed and crop is available now!

## Infections

PSTVd and TCDVd infections in tomato crops might originate from contaminated tomato seeds or infection from (non symptomatic) ornamentals such as *Brugmansia* spp. and *Solanum jasminoides*.

## Detection

Internationally accepted protocols for the detection of PSTVd and TCDVd in seeds of tomato are not available. Naktuinbouw developed a protocol which is approved by the Plant Protection Service of the Netherlands.

## Test

Naktuinbouw developed a method which can detect one contaminated seed in 3,000 tomato seeds. The test can also be used to detect the presence of PSTVd/TCDVd in leaves of tomato and other crops.

## More information?

Would you like more information about the possibilities of testing services? Do not hesitate to contact us.

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