



Got Nematodes? Agdia has a new ImmunoComb® to detect viruses they transmit

Agdia, Inc. is happy to announce the addition of a new product to their ImmunoComb® line to help growers detect and combat plant viruses that cause similar symptoms in addition to sharing nematodes as a common vector. The new [Nematode Viruses ImmunoComb®](#) brings together three existing ImmunoStrips® in one easy-to-use format.

Common symptoms require accurate testing for diagnosis

Arabid mosaic virus (ArMV), *Tobacco ringspot virus* (TRSV), and *Tomato ringspot virus* (ToRSV) are all commonly spread by nematodes and can cause similar yellowing symptoms on many plant species in the form of mosaic pattern ringspots, yellow line-patterns, and general chlorosis. Such visual similarities in the presence of a common vector underscore the unreliability of visually identifying the causal pathogen, further emphasizing the need for reliable and easy-to-use onsite diagnostic test methods.

Arabid mosaic virus (ArMV)

Arabid mosaic virus (ArMV) is a member of the *Nepovirus* genus known for their transmission by nematodes. It is the causal agent of raspberry yellow dwarf disease in raspberries and infects a wide range of other crops including other fruits such as grapevines & strawberry in addition to vegetables, ornamentals, and cannabis (hemp). While some infected plants may be asymptomatic, *Arabid mosaic virus* can cause a wide range of symptoms including stunting, leaf deformation, mottling & flecking.

Agdia's ImmunoStrip® for *Arabid mosaic virus* has been shown to successfully detect several isolates of ArMV with 100% diagnostic sensitivity observed during product validation studies. Out of 62 other viruses tested, this assay only cross-reacted with *Grapevine fleck virus* (GFkV). Hundreds of host species were tested with an overall diagnostic specificity of over 99%.

Tobacco ringspot virus (TRSV)

Tobacco ringspot virus (TRSV) is also a member of the genus *Nepovirus* and can infect a wide range of ornamental, fruit, vegetable, and field crops. Notable hosts include soybean, perennial herbs, cucurbits, blackberries and blueberries. It can be spread mechanically, through infected seed, as well as by nematodes and a variety of insects. The most common symptom of *Tobacco ringspot virus* infection is the presence of chlorotic ringspots. Depending on the host and the severity of infection, up to 100% crop loss can occur.

Agdia's ImmunoStrip® for *Tobacco ringspot virus* was designed to detect all strains and isolates of TRSV. Diagnostic sensitivity of this test is 100%, (all fifteen distinct TRSV-infected samples tested during product validation studies were detected). Diagnostic specificity was 100% out of over 100 host samples tested with no known cross-reactivity to other viral species.



Figure 1. The new Nematode Viruses ImmunoComb® for convenient detection of ArMV, TRSV & ToRSV, showing results for a TRSV-positive sample.



Tomato ringspot virus (ToRSV)

Tomato ringspot virus (ToRSV) is another member of the genus *Nepovirus* infecting many species such as raspberries, peaches, cherries, cucumbers, tomatoes, cowpea & many others. Common diseases include yellow vein disease in grapes, yellow bud mosaic in peaches & more. In addition to nematode transmission, the virus can also be spread by seed in certain species.

Agdia's ImmunoStrip® for *Tomato ringspot virus* was designed to detect all strains and isolates of ToRSV. Diagnostic sensitivity of this test is 100% (all sixteen distinct ToRSV-infected samples tested during product validation studies were detected). Diagnostic specificity for this assay is over 97%.

Simplifying diagnosis so you can take action faster

The [Nematode Viruses ImmunoComb](#)® for ArMV, TRSV & ToRSV allows growers to conveniently and simultaneously detect or rule out infections of each virus in a single sample. This product is sold in kits of 8 combs consisting of 4 ImmunoStrips® each, and the buffer-filled extraction bags necessary to perform a test. Agdia provides a one-year warranty on all purchased products along with an unrivaled level of customer support.

About Agdia

A leading provider of diagnostic solutions for agriculture, Agdia, Inc. has been serving plant breeders, propagators, growers, universities, and private testing laboratories since 1981. The company offers a comprehensive portfolio of validated, easy-to-use diagnostics for identifying plant pathogens, hormones, and transgenic traits. In addition, Agdia operates an ISO accredited, in-house, testing services laboratory. Agdia's quality management system is ISO 9001:2015 certified and their Testing Services Laboratory is ISO/IEC 17025:2017 accredited by ANAB. Visit the company's website at www.agdia.com, e-mail info@agdia.com, phone 1-574-264-2615 (toll-free 800-622-4342) or fax 1-574-264-2153.

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