



## Agdia Introduces ImmunoStrip® for Detection of *Nemesia Ring Necrosis Virus*

Agdia, Inc. (Elkhart, IN) is happy to announce the introduction of a rapid, user-friendly diagnostic product on their ImmunoStrip® platform for the [detection of \*Nemesia ring necrosis virus\*](#).

*Nemesia ring necrosis virus* (NeRNV) is a member of the *Tymovirus* genus. This virus has a relatively narrow confirmed host range, infecting ornamental varieties of *Alonsoa*, *Diascia*, *Lobelia*, *Nemesia*, *Sutera* and *Verbena*. Infection symptomology was reported initially in Germany in 2000. Since then, NeRNV infections have been confirmed in New Zealand, the United Kingdom and the United States, while the virus is thought to be widespread throughout Europe and North America. Symptomology varies by host and ranges from mild foliar mosaic and chlorotic flecks to severe leaf necrosis, rendering plants unmarketable. Furthermore, latent infections are commonplace and perpetuate the unintentional dissemination of infected propagative materials.

*Nemesia ring necrosis virus* can be spread locally via mechanical transmission and the feeding behavior of several species of herbivorous beetles in the families Chrysomelidae (leaf beetles) and Curculionidae (snout beetles or weevils). Unlike many arthropod viral vectors, such as aphids, thrips and whiteflies, beetles do not transmit viruses in their saliva. While feeding, beetles regurgitate foregut-borne viruliferous sap, bathing their mouthparts and transferring the virus in a semi-persistent manner to feeding wounds on healthy plants. Beetles can acquire NeRNV in a single bite and transmit it in kind. Furthermore, NeRNV is spread efficiently on contaminated tools used throughout production processes. Consequently, vector management, greenhouse sanitation and implement sterilization are critical to managing local epidemics.



The long-distance dispersal of NeRNV is through domestic and international shipping of infected propagative materials from initial and secondary sources of infection. The ornamental host species for NeRNV are propagated vegetatively through tissue culture and leaf and stem cuttings. These materials can be latently infected with NeRNV at the initial production facility. Viruliferous plant parts may be shipped to secondary producers for finishing and the subsequent shipment to wholesale nurseries, garden centers and big-box retail outlets. No therapeutics are available for plant viruses, and exclusion is the best management practice. Diagnostic testing of plant materials is the primary means of



identifying viruses at initial and secondary production steps and excluding infected plants before introduction into production inventories. Therefore, testing of all propagative materials is paramount to the management of NeRNV industry wide.

Agdia's new ImmunoStrip® for detection *Nemesia ring necrosis virus* was evaluated against a diverse panel of NeRNV isolates from multiple geographic regions and detected all true positives. Furthermore, Agdia states no cross-reactivity was observed with several potential cross-reactors widespread in ornamental production, including *Alfalfa mosaic virus*, *Alternanthera mosaic virus*, *Angelonia flower break virus*, *Calibrachoa mottle virus*, *Cucumber mosaic virus*, *Impatiens necrotic spot virus*, *Scrophularia mottle virus*, *Tobacco mosaic virus*, *Tobacco streak virus*, *Tomato aspermy virus*, *Tomato spotted wilt virus* and *Turnip yellow mosaic virus*. This assay does exhibit cross reactivity with *Scrophularia mottle virus*. This assay was developed to be used with leaf, stem and petiole sample material.

Introduction of the NeRNV ImmunoStrip® expands Agdia's catalog to include [47 plant pathogen products on this platform](#). Agdia's ImmunoStrip® platform provides end-users with unparalleled utility, and a high level of market demand for field-deployable, plant pathogen detection products has driven and informed this output.

The [Nemesia ring necrosis virus ImmunoStrip®](#) is sold in kits of 5 or 25 strips, and kits include everything necessary to perform a test. Agdia provides a one-year warranty on purchased kits. A diagnostic assay for the detection of this virus is also available in an enzyme linked immunosorbent assay (ELISA) format. For more information on these products, in addition to Agdia's full catalog of pathogen detection products, visit the company's website at [www.agdia.com](http://www.agdia.com), e-mail [info@agdia.com](mailto:info@agdia.com), phone 1-574-264-2615 (toll-free 800-622-4342) or fax 1-574-264-2153.

ImmunoStrip® is a registered trademark of Agdia, Inc.