



Agdia Releases Rapid Molecular Test Kit for Bacterial Wilt of Geranium (*Pelargonium*)

Agdia, Inc. is pleased to announce the commercial launch of a field-deployable rapid molecular test kit on its AmplifyRP® XRT platform for the [onsite, specific detection of *Xanthomonas hortorum* pv. *pelargonii* \(Xhp\)](#).

Growers can also send samples to Agdia's [Testing Services diagnostic laboratory](#) for expanded geranium (*Pelargonium*) pathogen screening that now includes the new molecular assay for bacterial wilt.

Xanthomonas hortorum pv. *pelargonii* is a gram-negative, rod-shaped bacterium and the causal agent of bacterial blight, one of the most damaging diseases affecting cultivated geraniums and related *Pelargonium* species. The disease has been reported across major geranium production regions worldwide, including the United States, Europe, Australia and Israel, and it remains a persistent threat to both propagators and finished-plant growers.

The disease can present differently depending on cultivar and growing conditions, which is part of what makes it difficult to diagnose on sight alone. Growers may see lesions confined to the leaf, an angular or V-shaped pattern of leaf yellowing, blackened veins, or wilt that shows up before any visible spotting appears at all. Once the bacterium reaches the plant's vascular tissue, infection can progress internally for some time before outward symptoms catch up, and warmer, more humid conditions tend to shorten that gap considerably. That lag between infection and visible symptoms is exactly what makes bacterial blight so easy to move around a facility unknowingly, whether through cuttings, stock plants, or shared equipment.

That same lag is why transmission control matters as much as detection. The bacterium moves plant to plant through routine greenhouse activity: propagation tools that aren't sanitized between cuts, water that splashes from an infected leaf onto a healthy one, and general handling of stock. It is not seed-transmitted, but it can linger in leftover plant material in growing media long enough to reintroduce disease in subsequent seasons or grow cycles. Because early infections are often symptomless and later symptoms can resemble those caused by other bacterial pathogens of geranium, including the *Ralstonia solanacearum* species complex (RSSC), accurate diagnosis is essential to selecting the right management response and protecting clean stock programs.

This new molecular assay adds a highly specific and sensitive molecular-grade confirmation option to Agdia's existing Xhp ImmunoStrip® and ELISA test kits, giving growers and diagnosticians a faster path to a definitive answer when serological screening flags a suspect sample.



Figure 1. Pair the new test with Agdia's AmpliFire® Pro portable isothermal fluorometer (coming soon)



Extensive validation studies were conducted to demonstrate fitness-for-purpose of the [new molecular assay](#):

- This test is highly specific to *Xanthomonas hortorum* pv. *pelargonii* (Xhp). It does not react with other pathovars of *Xanthomonas hortorum*, nor with other plant-pathogenic bacterial species such as *Ralstonia* spp., *Pseudomonas* spp. and others. Overall diagnostic specificity for this test is 100% (63 out of 63 true negatives detected).
- The new assay successfully detected 106 out of 106 positive samples, resulting in a diagnostic sensitivity of 100%.

To view the full validation report, see the "Technical Information" tab on the [product page](#).

About AmplifyRP®

Agdia's new [AmplifyRP® XRT assay for the detection of Xhp](#) is based on recombinase polymerase amplification (RPA). This technology enables the rapid amplification and detection of nucleic acid targets (DNA or RNA) at a single operating temperature of 39–42 °C.

AmplifyRP® products achieve sensitivity and specificity comparable to PCR, with clear advantages over the lab-based technology. AmplifyRP® products eliminate the need for a nucleic acid purification step; crude sample extracts are prepared using a simple extraction buffer and tested directly. When paired with Agdia's legacy AmpliFire® or forthcoming AmpliFire® Pro isothermal fluorometer (**Figure 1**), the AmplifyRP® system is a user-friendly tool that can be implemented in the field or the lab by personnel with limited molecular diagnostic experience. Total assay time is less than 30 minutes when used with the AmpliFire® as a real-time assay.

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 its 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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