



Agdia Releases Rapid Isothermal Assay for Detection of Quarantine Bacterium

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--- FOR IMMEDIATE RELEASE ---

Agdia, Inc. (Elkhart, IN) is happy to announce the commercialization of a rapid, user-friendly DNA-based assay on their AmplifyRP® XRT platform for the [detection of *Ralstonia solanacearum* race 3 biovar 2 \(RsR3B2\)](#).

Ralstonia solanacearum (Rs), formerly known as *Pseudomonas solanacearum*, causes bacterial wilt in numerous crops of economic importance worldwide. It is the causal agent of diseases including Southern wilt of geranium, Bacterial wilt of tomato, brown rot of potato, Moko disease, Bugtok disease, and Blood Disease of banana.

Ralstonia solanacearum is listed as an A2 (high risk) quarantine pathogen in the European and Mediterranean Plant Protection Organization (EPPO). In the United States, *Ralstonia solanacearum* race 3 biovar 2 is a Select Agent due to the potential impact on the domestic agricultural industry.

In 2020, *Ralstonia solanacearum* race 3 biovar 2 was detected in a U.S. greenhouse for the first time in 16 years. The infestation was traced back to geranium cuttings from an offshore location. Extensive testing and prompt mitigation efforts were employed to successfully eliminate the pathogen.

Agdia's new AmplifyRP® XRT assay for [detection of *Ralstonia solanacearum* race 3 biovar 2](#) is based on recombinase polymerase amplification (RPA). This technology promotes the rapid amplification and detection of nucleic acid targets, DNA or RNA, while maintaining a single operating temperature of 39–42 °C. The AmplifyRP® XRT products achieve sensitivity and specificity comparable to PCR, while having clear advantages over the lab-based technology. AmplifyRP® XRT products do not require a nucleic acid purification step; crude sample extracts are prepared using a simple extraction buffer and tested directly. When paired with [Agdia's AmpliFire® isothermal fluorometer](#) (figure 1), the XRT system is a user-friendly tool that can be implemented in the field or the lab by personnel with limited experience in molecular diagnostics. Total assay time is less than 30 minutes when used with the AmpliFire® as a real-time assay.



Figure 1: AmpliFire® portable isothermal fluorometer

Extensive product validation was conducted to demonstrate fitness for purpose. Agdia states their new assay was screened against 62 bacterial cultures representative of other races and biovars of Rs in addition to 117 cultures of other relevant bacterial species. No cross-reactivity was observed, confirming exclusive specificity of the assay to RsR3B2. Additionally, no host



reactions were observed in validation testing against geranium, tomato, potato, pepper, ginger, banana or eggplant samples. The new assay successfully detected all 19 distinct cultures of *R. solanacearum* race 3, biovar 2.

Note: While the new assay reliably detects *Ralstonia solanacearum* race 3 biovar 2, it does not change the current requirement in the United States for confirmation testing of positive *R. solanacearum* samples to take place in USDA-APHIS-PPQ's Beltsville Laboratory.

About Agdia

A leading provider of diagnostic solutions for agriculture, Agdia, Inc. has been serving plant breeders, propagators, growers, universities, regulatory organizations and private testing laboratories since 1981. The company offers a comprehensive portfolio of validated, easy-to-use diagnostics for identifying plant pathogens, plant hormones, and transgenic traits. Furthermore, 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 17025:2017 accredited. 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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