Agdia Releases Rapid Molecular Test for Detection of *Ralstonia solanacearum* (Rs)

Agdia, Inc. is happy to announce commercialization of a rapid, user-friendly DNA-based assay on their AmplifyRP® XRT platform for the detection of *Ralstonia solanacearum*.

Ralstonia solanacearum (Rs), formerly known as *Pseudomonas solanacearum*, causes bacterial wilt in numerous crops of economic importance worldwide. Bacteria in the *Ralstonia solanacearum* species complex are causal agents of diseases including southern wilt of geranium, bacterial wilt of tomato, brown rot of potato, Moko disease, Bugtok disease, and Blood disease of banana.

Figure 1: AmpliFire® Pro portable isothermal fluorometer (coming soon!)

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.

Agdia's new AmplifyRP® XRT assay for detection of *Ralstonia solanacearum* 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. AmplifyRP® products achieve sensitivity and specificity comparable to PCR, while having clear advantages over the lab-based technology. AmplifyRP® 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® Pro isothermal fluorometer (Figure 1, coming soon!), the AmplifyRP® 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.

Extensive product validation was conducted to demonstrate fitness for purpose. This assay was designed to reliably detect all strains/races/phylotypes of *Ralstonia solanacearum* and has also been shown to detect *Ralstonia pseudosolanacearum*. *In silico* data indicates that this test will also detect *Ralstonia syzygii* (The causal agent of Sumatra disease in cloves). No cross reactivity was observed with other pathogens tested during product validation. The new assay successfully detected 127 out of 128 diagnostic samples, resulting in a diagnostic sensitivity of 99.2%.

This test has been validated for use in many crops, including banana, eggplant, ginger, potato, tomato, geranium and a multitude of ornamental species.

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.