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Three USDA Research Laboratories Present Data Generated with Pressure Cycling Technology (PCT) at the American Phytopathological Society's 2009 Annual Meeting

SOUTH EASTON, Mass., Aug. 5, 2009 (GLOBE NEWSWIRE) -- Pressure BioSciences, Inc. (Nasdaq:PBIO) ("PBI" and the "Company") today announced that scientists from three separate U.S. Department of Agriculture (USDA) laboratories have presented data generated through the use of the Company's patented, cutting-edge pressure cycling technology ("PCT") at the American Phytopathological Society's ("APS") 2009 Annual Meeting, being held August 1-5 at the Oregon Convention Center in Portland, Oregon. The presentations related to innovative, plant pathology studies of various pathogens that can significantly and adversely affect important food crops, such as strawberries, wheat, peas, lentil, barley, canola, and especially citrus.

Citrus Huanglongbing (HLB) is a very serious bacterial disease that is adversely affecting citrus groves worldwide. The disease has already been responsible for the significant decrease in citrus production in many countries in Asia, Africa, the Arabian Peninsula, and Brazil. In 2005, HLB was discovered in Florida. HLB disease affects all of the main types of citrus, has no known cure, can greatly reduce fruit production, is spread through an insect called a citrus psyllid, and can ultimately kill citrus trees. If unstopped, the Company believes that the potential economic impact to the multi-billion dollar citrus industry of the U.S. and the rest of the world could be devastating.

Dr. Norman Schaad (USDA-ARS, Ft. Detrick, MD) presented data in an opening oral scientific session at APS on the ability of PCT, when used concomitantly with the Company's patent-pending ProteoSolve-SB buffer, to extract a yield of double-stranded HLB DNA that was at least 10 times greater than any other DNA extraction method tested. Dr. Schaad also stated that the extracted DNA was of very high quality, and that this should support the effective sequencing of the genome of the HLB bacterium. Genome sequencing is a very important step in gaining a better understanding of a disease and potential disease resistant mechanisms.

Dr. G. J. Bilodeau and colleagues (USDA-ARS, Salinas, CA) reported on the development of improved tests for the fungus Verticillium dahliae, a pathogen that can cause significant losses in highly susceptible crops such as strawberry. Dr. Bilodeau stated that V. dahliae presents challenges for disruption and extraction of intact DNA, and that he and his colleagues were evaluating different DNA extraction kits, combined with processing by PCT.

Dr. K.L. Schroeder and colleagues (USDA-ARS, Pullman, WA) reported on the incidence

and distribution of Rhizoctonia (causes "damping off", or the death of seedlings in agriculture) and Pythium (causes "root rot") fungi species in the soil of wheat, pea, lentil, barley, and canola fields. Fungal DNA was extracted from contaminated soil using PCT, their lab's standard sample preparation method.

Dr. Nathan Lawrence, VP of Marketing at PBI, said: "We are committed to working with plant pathologists in the U.S. and abroad to help improve their understanding of this very serious citrus disease. We are therefore very pleased that PCT combined with our patent-pending ProteoSolve-SB buffer has been reported to extract yields of DNA from cultured HLB that greatly exceed other existing methods. These findings indicate that PCT can be very useful in the laboratory analysis of HLB, and consequently may play an important role in the development of new procedures for diagnosing and controlling HLB. Such advances must be brought to market quickly, as we believe that this disease has the potential to significantly adversely affect the citrus industry worldwide."

Dr. Lawrence continued: "We are also pleased that PCT is being used by a USDA group to extract DNA from fungi in soil that infects wheat and other important crops, and that another USDA group is now evaluating PCT to extract DNA from fungi in soil that infects strawberries. These findings help support the Company's goal of developing multiple PCT uses in the agricultural area in an effort to help to make PCT the method of choice for the standardization of sample preparation for agricultural applications."

About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. (PBI) is a publicly traded company focused on the development of a novel, enabling technology called Pressure Cycling Technology (PCT). PCT uses cycles of hydrostatic pressure between ambient and ultra-high levels (up to 35,000 psi and greater) to control bio-molecular interactions. PBI currently holds 13 U.S. and 6 foreign patents covering multiple applications of PCT in the life sciences field, including genomic and proteomic sample preparation, pathogen inactivation, the control of chemical (primarily enzymatic) reactions, immunodiagnostics, and protein purification. PBI currently focuses its efforts in the development and sale of PCT-enhanced enzymatic digestion products designed specifically for the mass spectrometry marketplace, as well as sample preparation products for biomarker discovery, soil and plant biology, forensics, histology, and counter-bioterror applications.

Forward-Looking Statements

Statements contained in this press release regarding the Company's intentions, hopes, beliefs, expectations, or predictions of the future are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements regarding the potential impact of HLB on the citrus industry and the potential impact of the Verticillium dahlia, Rhizoctonia, and Phythium fungi on strawberries, wheat, pea, lentil, barley, and canola fields; the use of PCT and ProteoSolve-SB to extract HLB DNA; that the amount of HLB DNA extracted by PCT/ProteoSolve-SB is at least 10x the amount extracted by other methods; that PCT could be useful in the laboratory analysis of HLB; that PCT may play an important role in the development of new procedures for diagnosing and controlling HLB; that the use and findings by three USDA laboratories support the Company's goal of developing multiple PCT uses in agriculture; and that PCT may become the method of choice for agriculture sample preparation. These statements are

based upon the Company's current expectations, forecasts, and assumptions that are subject to risks, uncertainties, and other factors that could cause actual outcomes and results to differ materially from those indicated by these forward-looking statements. These risks, uncertainties, and other factors include, but are not limited to: the risk that other scientists may not be able to replicate the findings of Dr. Schaad or use PCT with similar effect as Dr. Bilodeau and Dr. Schroeder and their colleagues; possible difficulties or delays in the implementation of the Company's strategies that may adversely affect the Company's continued commercialization of PCT; changes in customer's needs and technological innovations; and the Company's sales force may not be successful in selling the Company's PCT product line because scientists may not perceive the advantages of PCT over other sample preparation methods, particularly in the agriculture market. Further, the Company expects that it will need additional capital to fund its continuing operations beyond the second quarter of 2010. Additional risks and uncertainties that could cause actual results to differ materially from those indicated by these forward-looking statements are discussed under the heading "Risk Factors" in the Company's Annual Report on Form 10-K for the year ended December 31, 2008, and other reports filed by the Company from time to time with the SEC. The Company undertakes no obligation to update any of the information included in this release, except as otherwise required by law.

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