

BIOCHEMICAL ANALYSIS OF *XANTHOMONAS GARDNERI* EXOENZYMATIC ACTIVITY TOWARDS PLANT TISSUE

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Xanthomonas gardneri causes bacterial spot in tomatoes and peppers. It has been responsible for recent outbreaks in Brazil and Canada. The model plant *Arabidopsis thaliana* was inoculated with *X. gardneri* and developed disease symptoms. The secretion of enzymes has been shown to play an important role in pathogenicity for different pathogens. To begin to understand the interaction of *X. gardneri* and *A. thaliana*, a biochemical analysis and the fingerprint of *X. gardneri* secreted proteins at 60h were performed. *Arabidopsis* leaf tissue induced the secretion of cellulose as well as α -arabinofuranosidase activities. For 2-D gel electrophoresis secretome analysis, *X. gardneri* was grown in minimum media supplemented with leaves of *A. thaliana* during 60 h at 28°C. Six spots corresponding to acidic proteins were resolved with pIs ranging from 5,0-5,85; and molecular masses between 14 and 36 kDa were identified. Maldi-ToF mass spectrometry will be used to identify these proteins. The biochemical assay and 2-D gel approaches are complementary. The emerging picture is that secreted enzymes that likely play a role in the acquisition of nutrients by *X. gardneri* and possibly have a role in pathogenicity are being identified.

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