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XXV CONGRESO DE LA SOCIEDAD CHILENA DE FITOPATOLOGÍA



XIX CONGRESO LATINOAMERICANO DE FITOPATOLOGÍA



LVI APS CARIBBEAN DIVISION MEETING



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07

Caracterización de aislamientos de *Ralstonia Solanacearum* Raza 2, agente causal de Moko de plátano, en el Valle del Cauca, Colombia

Characterizing Strains of *Ralstonia Solanacearum* Race 2, Causal Agent of Moko of Plantain, In Valle Del Cauca, Colombia

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Moko is a bacterial wilt of plantain and banana, caused by *Ralstonia solanacearum* race 2. It is the most important disease of these crops in Colombia, affecting 125,000 families. *R. solanacearum* has a wide range of hosts, geographical distribution, and pathogenicity. This study aimed to isolate *R. solanacearum* from infected plant tissue, using SMSA medium, real-time PCR with specific TaqMan probe Mus 20P and primers Mus 20F and Mus 20RP, and duplex PCR. We then evaluated the strains pathogenicity levels. A total of 93 samples of infected plant tissue from pseudostems, rachis, and petioles of selected plantain and banana plants were obtained in Valle del Cauca. Samples were amplified with duplex PCR and real-time PCR, with specific TaqMan probe Mus 20P and specific primers Mus 20F and Mus 20RP. The strains, identified by PCR as *R. solanacearum*, were inoculated into plantain plants of Dominico Hartón (*Musa* cv. AAB). As the positive check, the pathogenic strain *R. solanacearum* CIAT 078 was used. An analysis of variance was carried out for the variable AUDPC with minimum significant difference (MSD; $\alpha = 5\%$) to separate the strains into three groups of pathogenicity. Seventy-five strains were positive for real-time PCR with Ct value 25, which corresponded to the pathogen *Ralstonia solanacearum*. For 61 of the 75 strains obtained, the fragment was located in a gene related to chemotaxis protein, which is used to identify the strains as *R. solanacearum* phylotype II, measuring 500 bp, which was amplified with primers 93F/93R and 5F/5R.