

Isolation, genetic characterization and phenotypic profiling of *Xylella fastidiosa* strains from Costa Rica. N. RODRÍGUEZ-MURILLO¹, ISAIAS ABDALLAH, A BADILLA-LOBO¹, G GONZÁLEZ-ESPINOZA¹, C CHACÓN-DÍAZ¹. *Centro de Investigación en Enfermedades Tropicales, Universidad de Costa Rica, San Pedro 2060, Costa Rica. Email: carlos.chacondiaz@ucr.ac.cr.*

Xylella fastidiosa is endemic in Costa Rica. In the last decade *X. fastidiosa* has been detected and isolated from more than 20 different economic important crops and ornamentals, and most importantly extending the geographic range of detection of the bacteria. However, although the bacterium has great potential for the disease and it is widespread throughout the country, the symptoms related to infected plants are usually mild or asymptomatic. In recent years, the presence of *X. fastidiosa* in Europe has had important social and economic consequences not only in Europe but also in plant exporting countries such as Costa Rica. From previous reports it is known that *X. fastidiosa* strains isolated from Costa Rica represent a broader genetic variability than seen in other countries. In fact, there is genetic similarity among ST53 isolates from Costa Rica and the CoDiRo strains from affected Olives. The parallel study of *X. fastidiosa* circulating strains from Costa Rica can contribute to elucidate some specific traits of the European *X. fastidiosa* strains. In this work we isolate and characterize *X. fastidiosa* strains from different hosts to broaden the genotypic and phenotypic information related to our circulating strains. We have isolated *X. fastidiosa* ST33, ST21 and ST61 strains from Coffee and ST33 from Guava, these sequence types are related to *X. fastidiosa* subspecies *fastidiosa*. Complementary to genetic profiling, we are phenotypically characterizing our strains through biochemical and fatty acid profiling and through biofilm formation assays. Our goal is to standardize a series of *In vitro* assays that could eventually be used in reference and research units for *X. fastidiosa* profiling.

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