Genetic diversity of Xanthomonas citri subsp. Citri, causal agent of citrus canker.

ABSTRACT

A total of 25 samples of canker disease from different part of West Malaysia were isolated from three different hosts. After various diagnostic tests, the samples were identified as Xanthomonas citri subsp. citri (Xcc), and were also pathogenic to four tested citrus species. Molecular characterization using rep-PCR fingerprinting was carried out on the isolates. Cluster analysis using the combined banding patterns of ERIC and BOX-PCR clearly divided the isolates into different clusters according to their geographical origin, but not to their host species. A relatively high amount of genetic diversity was observed among isolates, as a group of isolates from a more restricted part of Malaysia separated from the rest with relatively low similarity, indicating that there might be distinct pathotypes of the bacterium present in Malaysia.

Keyword: Citrus; Citrus bacterial canker (CBC); Rep-PCR; Xcc.