

Characterization of the *Erwinia amylovora* Population in Israel

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A collection of 205 strains of *Erwinia amylovora* isolated in Israel over a period of 12 years has been established. The strains were isolated from different varieties of pear, apple, loquat and quince grown in Israel, and collected from different locations in the country. They were characterized in respect to degree of virulence on several hosts and serological and molecular characters. Pathogenicity tests carried out on flowering branches of pear and apple, shoots of pears, and on trees of pear and loquat grown in containers outdoors, revealed no significant differences in the severity of blossom blight or shoot blight among the various strains. ELISA and immunofluorescence assays revealed no serotypic groups among the Israeli strains. Genomic diversity was studied by random amplified polymorphic DNA (RAPD) analysis using 24 arbitrary 10-base primers. All the strains examined (45 Israeli and 11 from Egypt, Cyprus and Greece) produced the same RAPD patterns with each of the primers used. Amplification patterns were indistinguishable from those produced by strains isolated from the neighboring countries. Results presented in this study suggest that the population of *E. amylovora* in Israel is homogenous.

KEY WORDS: *Erwinia amylovora*; fire blight; RAPD analysis.

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