Characterization of *Erwinia amylovora* Strains from Bulgaria by Pulsed-Field Gel Electrophoresis

Iliana Atanasova[a], Zoltan Urshev[b], Petya Hristova[a], Nevena Bogatzevska[c], and Penka Moncheva[a,*]

[a] Department of General and Industrial Microbiology, Biological Faculty, Sofia University "St. Kliment Ohridski", 8 Dragan Tsankov Str., 1164 Sofia, Bulgaria. Fax: +359-2-865-66-41. E-mail: montcheva@biofac.uni-sofia.bg
[b] LB Bulgaricum PLC, R & D Center, 12[a] Malashevska Str., Sofia, Bulgaria
[c] Plant Protection Institute, Kostinbrod, Bulgaria

* Author for correspondence and reprint requests

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The aim of this study was to characterize genetically Bulgarian *Erwinia amylovora* strains using pulsed-field gel electrophoresis (PFGE) analysis. Fifty *E. amylovora* strains isolated from different hosts, locations, as well as in different years were analysed by PFGE after *Xba*I, *Spe*I, and *Xho*I digestion of the genomic DNA. The strains were distributed into four groups according to their *Xba*I-generated profile. About 82% of the strains displayed a PFGE profile identical to that of type Pt2. Three strains belonged to the Central Europe Pt1 type. Two new PFGE profiles, not reported so far, were established – one for a strain isolated from *Malus domestica* and another for all *Fragaria* spp. strains. The same grouping of the strains was obtained after analysis of the *Spe*I digestion patterns. On the basis of PFGE profiles, after *Xba*I and *Spe*I digestion, a genetic differentiation between the strains associated with subfamily Maloideae and subfamily Rosoideae was revealed. The presence of more than one PFGE profile in the population of *E. amylovora* in Bulgaria suggests a multiple source of inoculum.

Key words: Differentiation, *Erwinia amylovora*, PFGE