

Structural studies of O-specific polysaccharides of the genera *Pectobacterium* and *Dickeya* bacteria

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Pectinolytic bacteria cause blackleg and soft rot diseases of vegetables, crops, and ornamental plants worldwide. Among the most damaging agents of these diseases are bacteria of the genera *Pectobacterium* and *Dickeya* belonging to the family *Pectobacteriaceae*.

The development of the mentioned diseases and the induction of their symptoms depend on several factors, including the production and secretion of plant cell wall-degrading enzymes, as well as the production of siderophore, biofilm and lipopolysaccharide (LPS). LPS is the major component of the outer membrane of Gram-negative bacteria. LPS consists of lipid A, a core oligosaccharide, and an O-specific polysaccharide (OPS). OPS is a polymer with highly structurally variable repeating oligosaccharide subunits located in the outermost part of the LPS molecule. As one of the most exposed elements of the cell wall, it plays an important role in the interaction of the bacterial cell with its environment.

The aim of the study was to investigate the structural variability of the OPSs of different strains of *Pectobacterium* and *Dickeya* spp [1-3].

Increasing our knowledge of the chemical structure of the OPS of different bacteria of the family *Pectobacteriaceae* may help to explain the details of the interaction between pathogen and plant host but can also be used for species identification.

Bibliographic references:

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