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Molecular differentiation of Polish and Georgian strains of Clavibacter michiganensis subsp. sepedonicus

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Abstract

Clavibacter michiganensis subsp. Sepedonicus (Cms) reasons a dangerous bacterial ailment referred to as ring rot of potato. This ailment is of quarantine reputation inside the European Union, because the purpose of loss is its easiness to unfold. It manner, this ailment is controlled by way of countrywide regulations and there's zero tolerance for this pathogen inside the potato vegetation. This bacterium generates a large threat for seed fabric and breeding production and it hinders trading of potato in the EU and different international locations. Lack of sufficiently touchy techniques of detection and identification it results in negative removal of this pathogen. Up to now, the routine detection techniques, along with immunofluorescence take a look at (IF) and immunofluorescence assay (IFAS) by way of the use of poly and monoclonal antibodies are not sensitive sufficient. Therefore, still the rapid methods of detection and identity of Cms are searched. The statistics about range and structure of Cms populations are quintessential for the improvement of the handiest methods for detection and eradication of this pathogen. However, the prevailing understanding approximately the range of lines could be very poor. The differentiation of Cms strains might assist to outline the quarantine chance and devise effective techniques for control of ring rot. Analyses observed that the MP-PCR method confirmed the genetic diversity among examined isolates of Cms micro organism both in Polish and Georgian. The MP-PCR technique showed the variations between the genomes of isolates Cms which were detected in a reproducible way, therefore this approach is extensively utilized in genotyping organisms.

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