

عنوان مقاله:

Genetic and biological signature of Potato Virus X circulating in Kazakhstan

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خلاصه مقاله:

This research studied ten isolates of potato virus X (PVX) isolated from potato cultivars growing in Kazakhstan (KZ), Belarus (BY) and China (CN). Additionally, the potato samples were screened for Potato virus Y (PVY), Potato virus S (PVS), and Potato leafroll virus (PLRV) using multiplex reverse transcription-polymerase chain reaction (RT-PCR). PVX was isolated from the potato varieties 'Tamasha', 'Red Scarlet', 'Gala variety', 'Krone', 'Juwel', 'Gala', and 'b۲-V'. The identified isolates of PVX were sequenced and used to construct a phylogenetic tree, which demonstrated that KZ and BY isolates form clusters closely related to isolates from Asia and Europe, however, CN isolate formed a separate clade. KZΔ and KZV PVX isolates showed local symptoms of mosaic and light green speckled spots on the upper leaves of *Datura stramonium* in pathogenicity test.

کلمات کلیدی:

Potato, Potato Virus X, isolates, ELISA, PCR, Targeted sequencing, Indicator plants

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