First report of apple mosaic virus in peach in Pakistan

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Peach (*Prunus persica*) is one of the most important economic temperate fruits cultivated in Pakistan. Apple mosaic virus (ApMV; genus *Ilarvirus*, family “*Bromoviridae*”) is one of more than 30 viruses that can infect peach trees, worldwide. It may cause yellow line patterns on leaves and infection can result in severe fruit quality and yield losses (Paunovic et al. 2011). A survey of peach orchards in the Swat region of Pakistan was conducted to assess ApMV incidence and samples were collected from 200 symptomatic trees. Total RNA was extracted from 100 mg cortical scrapings of dormant shoots using a protocol of Chang et al. (1993) and tested for ApMV by two step RT-PCR using random hexamers to reverse transcribe RNA and the primers described by Menzel et al. (2002) to detect ApMV during PCR. The expected 262 bp-long fragment was obtained from 34/200 samples and the detections were confirmed using the ApMV species specific primer pair ApMV-F (5'-CTGGATGCAAGTGGTGTC-3') and ApMV-R (5'-AATCCCTCATAAAGACTTTTCG-3'), which were designed for this study and targeted a 548 nucleotide partial coat protein (CP) gene region. The PCR products of five samples were purified and sequenced and since the obtained sequences were identical, only two were submitted to GenBank (accession Nos. MN861387, MN861388). The nucleotide sequences of the CP gene fragment of peach isolates from this study shared

98.15% sequence similarity with isolate ApMV ISO5_EX/GARD (LT574870) and isolate Pospheh (HG328270) from Czech Republic and Belarus, respectively. To our knowledge, this is the first report of ApMV detection in peach trees in Pakistan.

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