BIOLOGICAL AND PHYLOGENETIC STUDY OF 
*Cauliflower mosaic virus* ON CANOLA IN IRAN *

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Abstract

*Cauliflower mosaic virus* (CaMV) causes yield losses in plants of Brassicaceae family including canola (*Brassica napus*). In order to detect CaMV in canola, a total of 684 leaf samples showing various virus-like symptoms were collected in several provinces of Iran including Tehran, Ghazvin, Chaharmahal-Bakhtiari, Mazandaran, Ardabil, West Azarbayjan and Fars provinces. Using a polyclonal antiserum and DAS-ELISA method, samples were tested for the presence of CaMV. ELISA positive isolates from 7 provinces, were used for further studies. Biological diversity of CaMV isolates was evaluated by their ability to infect turnip, kohlrabi and datura. All isolates under study infected turnip, producing local lesions of different sizes and timing, whereas, no symptom was observed on kohlrabi and datura. Specific primers amplified an 840 bp fragment of ORF V. Phylogenetic analysis grouped all Iranian isolates and two GenBank isolates (Cabb-D/H, M10376, Xinjiang, AF140604) in one cluster, while all other CaMV isolates from GenBank formed a separate cluster.

Keywords: Canola, *Cauliflower mosaic virus*, ORF V, Phylogeny, Canola viruses.

See Persian text for figures and tables (Pages ۳۹-۹۹).

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References


