First report of cucumber mosaic virus infecting *Callicarpa dichotoma* in Korea

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Purple beautyberry (*Callicarpa dichotoma*), a species of woody plant in the family Lamiaceae, is used for landscaping in Korea. During a survey in June 2017, virus-like symptoms, including mosaic and chlorosis, were observed on *C. dichotoma* on a farm located in Seoul, Korea. Based on symptoms, cucumber mosaic virus (CMV) infection was suspected. Ten symptomatic leaves were selected and the presence of CMV was confirmed by RT-PCR using cucumovirus genus-specific primers designed from a highly conserved region of the coat protein (CP) gene (5'-YASYTTTDRGGTTCAATTCC-3' and 5'- GACTGACC ATTTAAGCCG-3') (Choi et al. 1999). DNA fragments of the expected size (950 bp) were amplified, cloned, and sequenced. BLAST analysis of a CMV sequence (LC376028) showed 97% and 96% identity with CMV-Ph (EF424780) and CMV-Iris2 (KT998896), respectively. Furthermore, phylogenetic analysis indicated that the virus isolate named CMV-Cd belongs to CMV group IB. CMV-Cd caused mosaic symptoms on *Nicotiana* spp., *Capsicum*

annuum cv. Shin-hong, *Cucurbita pepo*, *Cucumis sativus*, *Physalis floridana*, *Solanum lycopersicum*, and *Vigna angularis*, while necrotic local lesion symptoms were observed in *Chenopodium quinoa*, *C. amaranticolor*, and *V. unguiculata* at 3 days post inoculation (dpi). Systemic vein necrosis was observed in *C. quinoa* at 14 dpi. To our knowledge, this is the first report of CMV infection in *C. dichotoma* in Korea.

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Reference

Choi S-K, Choi J-K, Park W-M, Ryu K-H (1999) RT-PCR detection and identification of three species of cucumoviruses with a genus-specific single pair of primers. J Virol Methods 83:67–73

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