



First report of canna yellow mottle virus in China

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Canna is an important garden and landscape flower in China. Canna yellow mottle virus (CaYMV, genus *Badnavirus*, family *Caulimoviridae*) has previously been reported from Japan, the United States, Italy, the Netherlands and also from Kenya (Agneroth et al. 2015) and India (Kumari et al. 2014). In the course of a survey conducted to investigate whether CaYMV occurred in Fujian province, Southwest China, leaf samples were collected from canna plants exhibiting mosaic, mottling, veinal streaking and veinal chlorosis symptoms. Total DNA was extracted from approximately 100 mg leaf tissue of 73 samples according to Shen et al. (2008). PCR was performed using CaYMV specific primer pairs, CaYMV-F (5'-GACTTCCTGGGTGCAACAAT-3') and CaYMV-R (5'-TCTGTGCAATCTTGGCGTAG-3') (Momol et al. 2004). The expected 565 bp fragment was amplified from four samples. The amplicons were cloned and sequenced. The sequences

obtained from the four samples shared over 97% sequence identity, and were deposited in GenBank (Accession Nos. KC195856, KC195857, KC208484, and KC208485). Sequence analysis showed that the sequences from all the four samples shared 95–99% nucleotide sequence identity with published CaYMV sequences, confirming that the examined samples were infected by this virus. To the best of our knowledge, this is the first report of CaYMV on canna in China. In view of the potential threat of CaYMV to canna production, it is necessary to strengthen surveys for the detection of this virus, and take effective control measures to prevent its spread.

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