

Abstract

Research Title : Genetic Diversity of Cucurbit-Infecting Geminiviruses in Central of Thailand.

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Geminivirus was shown to be associated with leaf curl or yellow leaf curl symptoms of some cucurbitaceous plants including cucumber, angled luffa, sponge gourd, wax gourd, pumpkin, chayote, watermelon, cantaloupe and ivy gourd. The DNA of virus infected pumpkin, wax gourd and angled luffa from Ratchaburi province, pumpkin and wax gourd from Suphanburi province and cucumber from Kanchanaburi province were detected by polymerase chain reaction (PCR). PCR-amplified DNA fragments contained coat protein (CP) and intergenic region (IR) of geminivirus were sequenced. Coat protein nucleotide sequences of geminivirus infected angled luffa (AGRB1) wax gourd (WGRB1) pumpkin (PKRB1) from Ratchaburi, cucumber (CBKB2) from Kanchanaburi and wax gourd (WGSB1) from Suphanburi were 768 nts. The viral genome contained intergenic region (IR) with the hairpin structure. AGRB1, WGRB1, CBKB2 and WGSB1 were closely related to ToLCNDV-TH[TH.Cu] shared 98.2-97.9.% sequence identity, PKRB1 and PKSB1 were closely related to SLCCNV-[TH.Wax.07], SLCCV-[WG.NP] and SLCPHV-PH[PH.Mun] with 97.9% and 98.3%, respectively.