

Identification of potyviruses species causing mosaic symptoms in Poaceae-weed species found in maize crop

Souza, IRP¹; Carvalho, SGM²; Melo, NO²; Gonçalves IAM², Sabato, EO¹, Rodrigues, JAS¹, Barros, BA¹

¹Embrapa Milho e Sorgo, Sete Lagoas, MG

²Centro Universitário de Sete Lagoas, UNIFEMM, Sete Lagoas, MG

email: isabel.prazeres@embrapa.br

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Common mosaic is the main viruses affecting maize in Brazil. The causal agent of this disease was identified as a potyvirus species, the Sugarcane mosaic virus (SCMV). Considering the several species of Poaceae occurring as weeds in maize crop, and due to their high potential as hosts for SCMV, it is important to identify the potyvirus species causing mosaic symptoms on these weeds. For the identification of the potyvirus species infecting these Poaceae-weed species were used specific primers for the coat protein (CP) gene of the potyviruses from the mosaic complex: *Sugarcane mosaic virus* (SCMV), *Sorghum mosaic virus* (SrMV), *Maize dwarf mosaic virus* (MDMV), *Johnsongrass mosaic virus* (JGMV), *Zea mosaic virus* (ZeMV), *Pennisetum mosaic virus* (PenMV), also a universal PCR primer to detect members of the Potyviridae. The total RNA was extracted from leaves of Poaceae-weed plants showing mosaic symptoms, and amplified using the Reverse Transcription (RT)-PCR. The amplicons obtained through PCR reactions were sequenced. Poaceae-weed plants belonging to the species *Sorghum verticilliflorum*, *Euchlaena mexicana*, *Brachiaria plantaginea* and *Brachiaria brizantha* showed amplicons with the universal primer for potyvirus detection and with the specific primers for SCMV. These results demonstrated that SCMV was the most frequent potyviruses species causing mosaic symptoms in these Poaceae-weed species found in maize crop. Financial support: Embrapa and Fapemig (CBB- RED-00005-14).