B-80: Evaluation of tomato lines and varieties for resistance to cucumber mosaic virus isolate from Matale

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The cucumber mosaic virus (CMV) infection of tomato reduces the quality and quantity of the yield. The most practical and economical way to control virus

infection is throngh host resistance. Tomato lines and varieties were evaluated for resistance to CMV under greenhouse conditions. The tomato virus collected from the Matale district has been confirmed as CMV. Twenty-eight tomato lines were used for the screening experiment. Tomato variety Caribe was used as a susceptible check and varieties T-245, T-146 and KWR were also included. Tomato seedlings were inoculated when they were 4 weeks old. Virus symptoms were recorded 6 weeks after inoculation. Some tomato lines were tested with ELISA to detect the presence of the virus.

Tomato varieties T-245, T-146, KWR and Caribe were susceptible to CMV. Tomato lines AC-00272, and CLN-1507-B1F1 were highly susceptible to CMV. Lines AC-01449, VL-262-6-12-1-1, CLN-1494-F1, and CLN-1507-Fl did not show any symptoms of CMV. The remaining lines were moderately susceptible. Enzyme-linked Immunosorbent Assay revealed the presence of virus in symptomatic tomato lines AC-01665, AC-00272, and CLN-1494-B1F1. CMV could be detected in the symptomless line VL-262-6-12-1-1 and it may be tolerant to the virus. The symptomless tomato line CLN-1507-F1 was free from CMV.