

Abstract

Cucumber vein yellowing virus (CVYV) is widespread in cucurbits in the Middle East. CVYV has filamentous particles and is transmitted by *Bemisia tabaci* by the semi-persistent mode. It has not yet been assigned to a specific genus or family.

Ultramicroscopic observations revealed numerous cylindrical cytoplasmic inclusions in melon and cucumber cells infected by CVYV isolates from Israel and Jordan.

Depending on the section orientation, the inclusions appeared as pinwheels or as bundles. In addition, a 1·9 kb DNA fragment was amplified by RT-PCR from CVYV-infected plant extracts using primers designed to detect all potyvirids. Sequence comparisons with the amplified fragment indicated that CVYV is more closely related to *Sweet potato mild mottle virus* than to any other virus in the family *Potyviridae*. These results suggest that CVYV can be considered as a tentative new member of the genus *Ipomovirus*, family *Potyviridae*.