

## **Biomolecular Relationships among Isolates of *Tomato Yellow Leaf Curl Tanzania Virus***

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An investigation of the biological properties of the virus causing tomato yellow leaf curl disease in Tanzania was initiated to compare it with other known tomato yellow leaf curl viruses. Properties relating to acquisition and inoculation feeding time, persistence, mechanical inoculation, seed transmission and host range were studied. Results obtained indicate that the virus was transmitted persistently by *Bemisia tabaci* Genn., but it was not mechanically, sap- or seed-transmissible. Minimum acquisition and inoculation feeding time was 30 min. *Capsicum annuum*, *Datura stramonium*, *Nicotiana glutinosa*, *N. tabacum* and *Lycopersicon esculentum* were found to be hosts of the virus among the plant species tested, whereas *Phaseolus vulgaris* was not. It is concluded that the properties of the agent causing yellow leaf curl symptoms in tomato plants from different regions in Tanzania are similar to those of *Tomato yellow leaf curl Sardinia virus* species studied elsewhere.

**KEY WORDS:** *Begomovirus*; *Bemisia tabaci*; phylogeny; Tanzania; TYLCV; vector–host relationships.

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Received July 2, 2002; received in final form Sept. 26, 2002; <http://www.phytoparasitica.org> posting Feb. 20, 2003.

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