

Mini data sheet on *Chino del tomate begomovirus*

Added in 2000 - Deleted in 2001

Reasons for deletion

Chino del tomate begomovirus was already covered by the list of *Bemisia*-transmitted viruses in EU regulations. It was not considered to be an alert situation. In 2001, it was therefore removed from the EPPO Alert List.

Chino del tomate begomovirus

Why	<i>Chino del tomate begomovirus</i> came to our attention as causing an emerging disease of tomato and capsicum in the Americas.
Where	Symptoms of Chino del tomate have been observed in cultivated tomato fields in Sinaloa, Mexico, since the 1970s (Brown & Nelson, 1988). The virus was later found in other Mexican states: Chiapas, Morelos and Tamaulipas. Recently, it was also found in glasshouse tomatoes in Sonora (Idris <i>et al.</i> , 1999). Its presence is also reported in Texas, USA (internet). <i>Chino del tomate begomovirus</i> is sometimes found in mixed infection with <i>Pepper huasteco</i> and <i>Texas pepper begomovirus</i> . Distribution: Mexico (Chiapas, Morelos, Sinaloa, Sonora, Tamaulipas), USA (Texas).
On which plants	Capsicum (<i>Capsicum annuum</i>) and tomato (<i>Lycopersicon esculentum</i>). The weed <i>Malva parviflora</i> (Malvaceae) is also mentioned as a natural host plant.
Damage	It was reported that in the west coast of Sinaloa, the disease could affect 100 % tomato plants in the field (Brown & Nelson, 1988). Symptoms are characterized by curling, rolling of leaves, thickening of veins, yellow mosaic, stunting, reduction of fruit set.
Transmission	Transmitted by <i>Bemisia tabaci</i> . Not transmitted by seed or by contact between plants.
Note	<i>Tomato leaf crumple begomovirus</i> which was described in Sinaloa, Mexico, by Paplomatas <i>et al.</i> (1994) is now considered as a strain of <i>Chino del tomate begomovirus</i> (Torres-Pacheco <i>et al.</i> , 1996).
Pathway	Infected tomato and capsicum plants, fruits?, viruliferous <i>B. tabaci</i> from countries where <i>Chino del tomate begomovirus</i> occurs.
Possible risks	Tomato and capsicum are important crops in the EPPO region, both indoor and outdoor. Disease significance appears to be rather high on tomato crops, symptoms are sometimes reported to be severe (no data for capsicum?). The vector is present in many parts of the EPPO region.
Source(s)	Brown, J.K.; Nelson, M.R. (1988) Transmission, host range and virus-vector relationships in chino del tomate virus, a whitefly-transmitted geminivirus from Sinaloa, Mexico. <i>Plant Disease</i> , 72(10), 866-869. Idris, A.M.; Lee, S.H.; Brown, J.K. (1999) First report of Chino del tomate and pepper huasteco geminiviruses in greenhouse-grown tomato in Sonora, Mexico. <i>Plant Disease</i> , 83(4), p 396. Paplomatas, E.J.; Patel, V.P.; Hou, Y.M.; Noueiry, A.O.; Gilbertson, R.L. (1994) Molecular characterization of a new sap-transmissible bipartite genome geminivirus infecting tomatoes in Mexico. <i>Phytopathology</i> , 84(10), 1215-1224. Polston, J.E.; Anderson, P.K. (1997) The emergence of whitefly-transmitted geminiviruses in tomato in the Western Hemisphere. <i>Plant Disease</i> , 81(12), 1358-1369. Torres-Pacheco, I.; Garzón-Tiznado, A.; Brown, J.K.; Bercerra-Flora, A.; Rivera-Bustamante, F.R. (1996) Detection and distribution of geminiviruses in Mexico and the Southern United States. <i>Phytopathology</i> , 86, 1186-1192. INTERNET GEMINI DETECTive Web site by Dr. Judith Brown, University of Arizona and Dr. Stephen D. Wyatt, Washington State University (US) http://ipmwww.ncsu.edu/nipmn/GEMINI/descriptions/CDTV.html (description and pictures)

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