

Mini data sheet on *Tomato yellow mosaic begomovirus*

Added in 2000 - Deleted in 2001

Reasons for deletion:

Tomato yellow mosaic 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 EPP0 Alert List.

Tomato yellow mosaic begomovirus

Why	<i>Tomato yellow mosaic begomovirus</i> came to our attention as causing an emerging disease of tomato in the Americas. The disease was first reported in Venezuela in 1963 as a virus transmitted by <i>Bemisia tabaci</i> .
Where	Venezuela. The VIDE database mentions its presence in Brazil (as mosaico dourado do tomateiro which is also the disease name of <i>Tomato golden mosaic begomovirus</i> in Brazil?)
On which plants	Tomatoes (<i>Lycopersicon esculentum</i>). Natural infection has once been reported in potato (<i>Solanum tuberosum</i>) causing up to 70 % losses in potato cv. Sebago (Debrot & Centeno, 1985). Weeds like <i>Lycopersicon esculentum</i> var. <i>cerasiforme</i> and <i>L. pimpinellifolium</i> are reported as natural hosts.
Damage	Symptoms are a golden yellow mosaic and stunting. No fruit is produced if plants are infected early. It is reported that tomato yellow mosaic has caused millions of dollar losses in tomato commercial fields in Venezuela. By the time of flowering, 90-100 % of tomato plants could become infected by the virus (Piven <i>et al.</i> , 1995)
Transmission Note	Transmitted by <i>Bemisia tabaci</i> . It is not clear whether Tomato yellow mosaic in Venezuela and Tomato golden mosaic in Brazil are caused by distinct begomoviruses. Relationships between <i>Tomato yellow mosaic</i> and <i>Potato yellow mosaic begomoviruses</i> are not known.
Pathway	Infected tomato plants, fruits?, viruliferous <i>B. tabaci</i> from countries where <i>Tomato yellow mosaic begomovirus</i> occurs.
Possible risks	Tomato is an important crop in the EPP0 region, both indoor and outdoor and the virus vector is present in many parts of the EPP0 region. The disease is causing problems on tomato in Venezuela but the situation on potato is not clear. Data is also lacking on the relationships of this virus with other begomoviruses of tomato.
Source(s)	Debrot, E.A.; Centeno, F. (1985) Natural infection of potato in Venezuela by tomato yellow mosaic, a geminivirus transmitted by whiteflies. <i>Agronomia Tropical</i> , 35(-3), 125-138 (abstract). Piven, N.M.; Uzcátegui, de R.C.; Infante, H.D. (1995) Resistance to tomato yellow mosaic virus in species of <i>Lycopersicon</i> . <i>Plant Disease</i> , 79(6), 590-594. 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. Uzcátegui, de R.C.; Lastra, R. (1978) Transmission and physical properties of the causal agent of mosaico amarillo del tomate (tomato yellow mosaic). <i>Phytopathology</i> , 68(7), 985-988. INTERNET VIDE database http://biology.anu.edu.au/Groups/MES/vide/descr841.htm (Tomato yellow mosaic bigeminivirus) http://biology.anu.edu.au/Groups/MES/vide/descr827.htm (Tomato golden mosaic bigeminivirus)

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