What we know today about Tomato Torrado virus and Tomato Marchitez Virus

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A new virus was isolated and characterised from tomato plants from the Murcia region in Spain which showed symptoms of ‘torrado disease’: very distinct necrotic, almost burn-like symptoms on leaves of infected plants. Additionally, a new virus was isolated and characterised from a tomato plant from the state of Sinaloa in Mexico. This plant showed symptoms locally known as ‘marchitez disease’: severe leaf necrosis, beginning at the base of the leaflets, and necrotic rings on the fruits. Both viruses appeared to be novel and the names ‘Tomato torrado virus’ (ToTV) and ‘Tomato marchitez virus’ (ToMarV) were proposed, respectively, by Verbeek et al., (2007 and 2008).

Since then, additional research on ToTV by many research groups showed that this virus was also found on the Canary Islands, in Poland, Australia, Hungary and Panama (Fernández et al. 2007; Pospieszny et al. 2007; Int Phytosanitary Portal (IPPC, FAO, Rome), 2008; NPPO of Hungary, 2008; Herrera et al. 2009).

In a recent publication on the taxonomy of the virus order Picornavirales it was proposed to add ToTV and ToMarV to a newly created genus termed Torradovirus (type species, Tomato torrado virus) and to assign this genus to the proposed family Secoviridae (Sanfaçon et al., 2009).