

Tomato torrado virus (ToTV) family Secoviridae

What is it?

Tomato torrado virus (ToTV) is a disease of greenhouse tomatoes as well as other Solanaceous crops (e.g. capsicums and eggplants). Symptoms include leaf discolouration (yellowing) and burn-like lesions on the leaves, as well as stunted plants (Fig. 1). Symptoms can be similar to TSWV (tomato spotted wilt virus).

How is it transmitted?

ToTV can be transmitted by whiteflies – greenhouse whitefly (*Trialeurodes vaporariorum*) and tobacco whitefly (*Bemisia tabaci*) (Fig. 2). It can also be spread by trade of infected plants. It is currently thought that ToTV is seed transmitted, based on laboratory experiments.

What symptoms to look for?

Affected plants show necrotic (burn-like) lesions in the upper parts of the plants. The burn-like lesions are found at the base of the leaflets (Fig.1). The burns later turn into shot holes (holes in the leaf). Burn-like (necrotic) lesions can also appear lengthwise on the stems. This can be followed by the development of necrotic line patterns or blotches. ToTV can cause deformed fruit which can be unmarketable (Fig 3).

Impact

ToTV is an emerging disease of tomato crops. The virus has the potential to cause considerable yield losses and is reportedly causing serious economic losses in tomato crops in Spain.

Where is it present?

ToTV is present in Australia (restricted distribution), parts of Europe including the Canary Islands, Morocco, South Africa, Panama and Colombia.

How can I protect my industry?

Check your production site frequently for the presence of new diseases and unusual symptoms. Make sure you are familiar with common industry diseases so you can recognise something different.



Figure 1. Tomato torrado virus
Prof. Dr. Ir. RAA (Rene) van der Vlugt



Figure 2. Vector - greenhouse whitefly (*Trialeurodes vaporariorum*) adult in-field
David Cappaert, Bugwood.org



Figure 3. Tomato torrado virus – symptoms on green fruit. Strateco [factsheet](#).