

Tomato Yellow Leaf Curl Virus , Potato Spindle Tuber Viroid and Silverleaf Whitefly

Background of the Detections

Tomato Yellow Leaf Curl Virus / Silverleaf Whitefly

The exotic virus known as *Tomato Yellow Leaf Curl Virus* (TYLCV), a *begomovirus*, was detected in early 2006 in south east and south west regions of Brisbane on cherry tomatoes and in Bundaberg in both commercial and home garden tomatoes. This is the first record of this disease occurring in Australia.

The whitefly *Bemisia tabaci* biotype B (Silverleaf Whitefly) is the main vector, transmitting Tomato Yellow Leaf Curl Virus in a persistent manner. Silverleaf Whitefly (SLW) is known to occur in Queensland, New South Wales, Northern Territory and Western Australia but has not been detected in Victoria since an isolated detection in 2003. Silverleaf Whitefly has a wide host range, enabling it to rapidly spread Tomato Yellow Leaf Curl Virus.

Tomato Yellow Leaf Curl Virus causes the most devastating virus disease complex of tomato in tropical and warm temperate regions, causing crop losses up to 100%.

Potato Spindle Tuber Viroid (PSTVd)



This disease was confirmed in mid December 2006 in field tomatoes in Carnarvon, Western Australia. The viroid, which is declared as an exotic under the Plant Health and Plant Products Act, can have serious impact on both tomato and potato industries. Plant Standards will be providing industry with more information about this pest in due course.

Update on Current Situation

Surveys for TYLCV and SLW

Procedures for surveying glasshouses for Silverleaf Whitefly and Tomato Yellow Leaf Curl Virus have been developed.

Surveys will commence in hydroponics, glasshouse vegetable and flower production the week starting January 22nd 2007. Plant Standards staff will contact growers to arrange a suitable time for surveys to be conducted.

Surveys for Potato Spindle Tuber Viroid (PSTVd)

Plant Standards Staff will survey for PSTVd in conjunction with the Tomato Yellow Leaf Curl Virus and Silverleaf Whitefly surveys. Glasshouse tomatoes and eggplants will be surveyed as they are a host to PSTVd.

Interstate Movement for TYLCV and SLW

Silverleaf Whitefly and Tomato Yellow Leaf Curl Virus are exotic pests.

An order under the *Plant Health and Plant Products Act 1995* restricting or prohibiting the entry or importation of Tomato Yellow Leaf Curl Virus host material into Victoria was introduced in August 2006.

A notice to wholesalers and importers was issued to inform of the new requirements for importing host Tomato Yellow Leaf Curl Virus material into Victoria from Queensland. This is available on the Plant Standards web page.

More Information and Contacts

For Enquiries on surveys and market access please contact the Plant Standards Branch on (03) 9210 9390.

Useful websites:

Potato Spindle Tuber Viroid

- <http://www.agric.wa.gov.au>

Tomato Yellow Leaf Curl Virus & Silverleaf Whitefly

To Report Suspect Pest & Disease Call the Exotic Plant Pest Hotline

1 800 084 881

For Further Information

visit the Plant Standards web page

www.dpi.vic.gov.au/psb

Field Symptom Guide

All the following symptoms are from tomatoes. The virus symptoms are very variable, so it is important to notify the Plant Standards Branch on (03) 9210 9390 if you notice any suspect symptoms.

Tomato Yellow Leaf Curl Virus



Silverleaf Whitefly



Potato Spindle Tuber Viroid



Photo: Department of Agriculture and Food, Western Australia