



AVRDC - The World Vegetable Center

Fact Sheet

Tomato Diseases

Potato Virus X (PVX)

Found worldwide, particularly in potato growing areas

Symptoms

Infection by PVX usually causes leaf mottling and slight stunting, but in some cases the foliage may have distinct yellowing depending upon the virus strain. The mottled areas may have small, brown spots.

Tomato plants infected with both PVX and tomato mosaic virus (ToMV) have what is known as *double virus streak* (see photo). Symptoms include long brown streaks on petioles or stems. Petiole lesions may cause the death of leaves. Infected fruit will have irregular, brown, raised, greasy, randomly occurring spots that may coalesce, become dry, sunken, and finally crack. Symptoms of double virus streak are masked or very faint above 26°C.

Conditions for Disease Development

The virus infects many crops, especially solanaceous crops such as eggplant, potato, tobacco and pepper, as well as various weeds and ornamentals.

Potato virus X often originates from nearby potato crops and from stored potato tubers. Tomatoes, if grown in soil that has produced a potato crop in the previous 4–6 months, may become infected with the virus.

Double virus streak disease may be a problem where crops of potatoes and tomatoes are grown nearby.

Potato virus X is transmitted by workers on contaminated hands, clothing, and tools during routine horticultural operations such as transplanting, tying, pruning, grafting, pollinating, cultivating, spraying, watering, and harvesting, as well as on the mouthparts



of chewing insects such as grasshoppers. The virus may sometimes be found in streams, drainage canals, ponds or rivers.

Control

Tomato varieties with resistance to PVX (and ToMV) are available. Consult with your local extension agent to determine those suitable in your region.

Avoid growing tomatoes near potato fields. Workers who handle potato plants or tubers should change clothes and wash thoroughly with soap and water before working with tomatoes. Similarly, tools and equipment used with potatoes should be thoroughly cleaned before being used in tomatoes.

For more information on the production of tomato and other vegetables, go to <www.avrdc.org>.

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