

Pepino mosaic virus (PepMV)

Potexvirus pepini

Crops affected: Eggplant, Tomato

What is it?

PepMV is mainly a disease of greenhouse **tomatoes**, but it can infect other Solanaceous crops such as **eggplants** and potatoes.

What should I look for?

A wide range of symptoms can occur on leaves and fruit ranging from asymptomatic to severe. On tomato, initial symptoms can include small yellow leaf spots (Fig 1), and at a later stage, older leaves may show mottling and top leaves may show slight curling (Fig 2). Leaf blistering can also occur (Fig 3). Symptoms may depend on climatic conditions and become more visible under low light conditions. Fruit can also become split shortly after setting (Fig 4) causing seeds to be visible. Fruit on infected plants may show an orange mottling, but these symptoms can be inconsistent and may differ between trusses on a plant (Fig 5). Eggplants may be asymptomatic or show mild symptoms.

How is it transmitted?

PepMV is easily transmitted mechanically by contaminated tools, hands, clothing, direct plant-to-plant contact, and by propagation (grafting, cuttings). Pollinating bumblebees can also spread the virus. PepMV is seed transmitted, and transmission by aphids is unknown. PepMV can survive on plant debris and contaminated surfaces and remain infectious for several weeks.

Why is it important?

PepMV infection does not always result in significant economic impact as fruit symptoms may be absent. It has been suggested that yield may be affected and fruit setting may be delayed.

Where is it present?

PepMV is present in North, Central and South America, Europe, Turkey, Egypt, Israel, Syria, Iraq, Morocco, South Africa, South Korea, and China.

In April 2021, an incursion of the Chilean 2 (CH2) strain of PepMV occurred in commercial greenhouses in Auckland. This strain of PepMV is now under long-term management.

How can I protect my industry?

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



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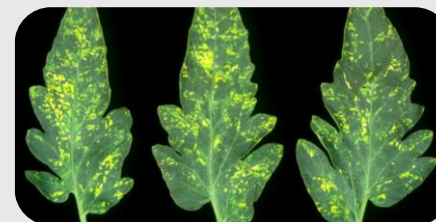


Fig 1. Pepino mosaic virus, yellow leaf spot symptom Photo credit: R. van der Vlugt. Copyright WUR. <https://gd.eppo.int/>



Fig 2. Slight leaf discoloration on infected plant on right. Photo credit: Image from DPV411 Fig.13



Fig 3. Leaf blistering symptoms. Photo credit: R. van der Vlugt. Copyright WUR. <https://gd.eppo.int/>



Fig 4. PepMV symptoms on cherry tomatoes. Photo credit: Dr Andrea Minuto, Centro di Saggio, CERSAA, Albenga (IT). <https://gd.eppo.int/>



Fig 5. Symptoms on fruit, uneven ripening and surface 'marbling' (left), healthy with normal appearance (right). Photo credit: Image from DPV411 Fig. 6