



Scientific Name

Tomato mosaic virus (ToMV) and *tobacco mosaic virus* (TMV)

Greenhouse/High Tunnel Host Crops

Tomato, tobacco, pepper, and more

Identification

Foliage

- A mosaic pattern begins to form 10 to 14 days after the plant becomes infected
- Leaves begin to curl and become “fern-like” (filiform) or pointed in appearance
- Plant tissues develop yellow streaking or spotting until they become completely chlorotic

- Newer growth is deformed and distorted

Fruit

- Fruit may exhibit external symptoms such as [brown spots](#) or blotchy discolored areas; the insides may display browning or mottling
- Fruit also may appear distorted or deformed with delayed or non-uniform ripening
- The plant will be stunted with poor yields

Often Confused With

Herbicide damage, tobacco etch virus, potato virus Y

Thresholds

Currently, there is no threshold information for ToMV.

Favorable Environmental Conditions

Symptoms caused by ToMV are more severe at low light conditions and at 24°C than at higher or lower temperatures.

Scouting Notes

Throughout the season, plants should be checked for mosaic, mottling, and chlorotic symptoms. Fruits may also develop a mosaic pattern and be deformed. Infected plants should be removed carefully, without touching healthy plants.



Management Notes

Use [Host Resistance](#) – There are several tomato cultivars specifically bred for resistance to ToMV/ TMV. Cross protection is another form of resistance in tomato to ToMV; however, more severe symptoms may be observed if tomato plants are co-infected with a mild ToMV strain and another virus such as *Cucumber mosaic virus*.

Start with Virus-Free Plants and Seeds – ToMV spreads from plant to plant through vegetative propagation, grafting, and seeds. Therefore, it is very important to make sure any plants grown in the greenhouse or high tunnel are virus-free.

Use Sound Sanitation Practices – Sanitize tools and dispose of infected materials and plants carefully. Wash hands and dip them in milk after handling ToMV- or TMV-infected plants and before handling any other plants. Keep the high tunnel weed free because weeds may harbor ToMV.