



Brian E. Whipker<sup>1</sup>



Patrick Veazie<sup>1</sup>

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# Daphne: Tomato Spotted Wilt Virus (TSWV)

*Leaf mottling and ringspots were observed on daphne (*Daphne odora*). These symptoms are typical of what occurs with a virus. This Alert will aid in the identification of a tomato spotted wilt virus (TSWV) infection in daphne.*



Figure 1. View of a daphne plant with ringspots caused by tomato spotted wilt virus infection (TSWV). (Photo: Brian Whipker)

Daphne (*Daphne odora*) is a broadleaf shrub that is native to China. It blooms in late winter in North Carolina and has a wonderful scent. On a recent grower visit, a few plants were observed a few, small ringspots on the leaves (Fig. 1) and mottled leaves (Fig. 2 & 3). Slight leaf distortion due to Western flower thrips feeding was observed on a few plants (Fig. 4 & 5). This Alert can be used as a visual tool for diagnosing TSWV symptoms on daphne.

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<sup>1</sup>NC State University, Dept. of Hort. Science  
[bwhipker@ncsu.edu](mailto:bwhipker@ncsu.edu)

Plants were tested for tomato spotted wilt virus (TSWV) and it was confirmed with an enzyme-linked immunosorbent assay (ELISA) test. If you suspect a virus problem, have the plants tested by a diagnostic clinic. You can also conduct in-house testing with ELISA kits from Agdia (<http://www.agdia.com/>). It is important to test multiple leaves from the same plant that is **exhibiting symptoms**. The total leaf area tested should be around 1 square cm (postage stamp size). We used slightly less leaf material because the leaves were thick.

### Management

Once a plant has TSWV or the other common virus found in greenhouse production, impatiens necrotic spot virus (INSV), it cannot be cured. Discarding infected plants is the only option, and this will help prevent the virus from spreading further. It is important to note that some plants may be asymptomatic, but still have TSWV or INSV. Since the primary method of spreading these viruses in greenhouses is via Western Flower thrips (*Frankliniella occidentalis*) feeding, it is critical to keep them under control.



Figure 2. Ringspotting (tip portion of the plant) due to a tomato spotted wilt virus (TSWV) infection. (Photo: Brian Whipker)

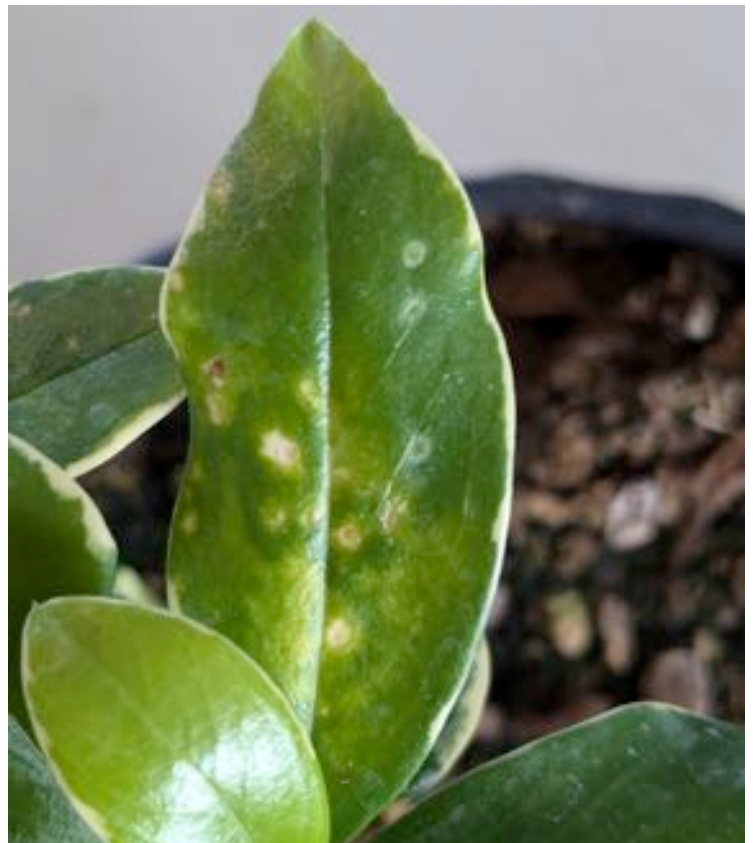


Figure 3. Leaf mottling on daphne due to TSWV. (Photo: Brian Whipker)



Figure 4. Leaf distortion on daphne from Western flower thrips feeding. (Photo: Brian Whipker)



Figure 5. Top view of a daphne plant with TSWV. (Photo: Brian Whipker)

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**CONTRIBUTORS**

Dr. Nora Catlin  
Floriculture Specialist  
Cornell Cooperative Extension  
Suffolk County  
[nora\\_catlin@cornell.edu](mailto:nora_catlin@cornell.edu)

Dr. Chris Currey  
Assistant Professor of Floriculture  
Iowa State University  
[ccurrey@iastate.edu](mailto:ccurrey@iastate.edu)

Dr. Ryan Dickson  
Greenhouse Horticulture and  
Controlled-Environment Agriculture  
University of Arkansas  
[rvand@uark.edu](mailto:rvand@uark.edu)

Dan Gilrein  
Entomology Specialist  
Cornell Cooperative Extension  
Suffolk County  
[dng1@cornell.edu](mailto:dng1@cornell.edu)

Dr. Chieri Kubota  
Controlled Environments Agriculture  
The Ohio State University  
[kubota.10@osu.edu](mailto:kubota.10@osu.edu)

Heidi Lindberg  
Floriculture Extension Educator  
Michigan State University  
[wolleage@anr.msu.edu](mailto:wolleage@anr.msu.edu)

Dr. Roberto Lopez  
Floriculture Extension & Research  
Michigan State University  
[rlopez@msu.edu](mailto:rlopez@msu.edu)

Dr. Neil Mattson  
Greenhouse Research & Extension  
Cornell University  
[neil.mattson@cornell.edu](mailto:neil.mattson@cornell.edu)

Dr. W. Garrett Owen  
Sustainable Greenhouse & Nursery  
Systems Extension & Research  
The Ohio State University  
[owen.367@osu.edu](mailto:owen.367@osu.edu)

Dr. Rosa E. Raudales  
Greenhouse Extension Specialist  
University of Connecticut  
[rosa.raudales@uconn.edu](mailto:rosa.raudales@uconn.edu)

Dr. Alicia Rihn  
Agricultural & Resource Economics  
University of Tennessee-Knoxville  
[arihn@utk.edu](mailto:arihn@utk.edu)

Dr. Debalina Saha  
Horticulture Weed Science  
Michigan State University  
[sahadeb7@msu.edu](mailto:sahadeb7@msu.edu)

Dr. Beth Scheckelhoff  
Extension Educator - Greenhouse Systems  
The Ohio State University  
[scheckelhoff.11@osu.edu](mailto:scheckelhoff.11@osu.edu)

Dr. Ariana Torres-Bravo  
Horticulture/ Ag. Economics  
Purdue University  
[torres2@purdue.edu](mailto:torres2@purdue.edu)

Dr. Brian Whipker  
Floriculture Extension & Research  
NC State University  
[bwhipker@ncsu.edu](mailto:bwhipker@ncsu.edu)

Dr. Jean Williams-Woodward  
Ornamental Extension Plant Pathologist  
University of Georgia  
[jwoodwar@uga.edu](mailto:jwoodwar@uga.edu)

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