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New Guinea Impatiens: Tomato Spotted Wilt Virus (TSWV)

Necrotic spotting and ringspots were observed on while visiting a grower. These symptoms are typical of what occurs with a virus. This Alert will aid in identification of a tomato spotted wilt virus (TSWV) infection.

A grower pointed out a few New Guinea impatiens that had necrotic patches (Figs. 1&2). The necrotic symptoms were pronounced on the leaves. The plants lacked the typical overall major stunting, twisted leaf growth, and mottling that one also typically observes with TSWV (Fig. 3). Together, both groups of images will provide an excellent visual tool for diagnosing virus symptoms.



Figure 1. Necrotic spotting due to a tomato spotted wilt virus (TSWV) infection. (Photo: Brian Whipker)

A plant was tested for 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.

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Management

Once a plant has TSWV or impatiens necrotic spot virus (INSV), it cannot be removed. 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 is via Western Flower thrips (*Frankliniella occidentalis*) feeding, it is critical to keep them under control.



Figure 2. Additional images of necrotic spotting due to a tomato spotted wilt virus (TSWV) infection. (Photos: Brian Whipker)

Additional Signs of TSWV

Images of tomato spotted wilt virus infected New Guinea impatiens. Photos taken over the last 10 years. Mottled leaves, distorted leaves and ringspots are typical signs of TSWV.



Figure 3. Photo collection of tomato spotted wilt virus (TSWV) infected of New Guinea impatiens. (Photos: Brian Whipker)

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