

## Ornamental Plants and Thrips Populations Associated with Tomato Spotted Wilt Virus in Greece

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A survey was conducted in order to record the ornamental plants that are hosts of tomato spotted wilt virus (TSWV) and impatiens necrotic spot virus (INSV) in Greece. Polyclonal antibodies prepared against the N protein of a Greek isolate of TSWV from *Gerbera jamesonii* (GR-34) were used. Leaf samples were taken from plants showing typical symptoms of tospovirus infection such as chlorotic and necrotic rings on the leaves and malformation and necrosis of the flowers. The samples were tested by double antibody sandwich enzyme-linked immunosorbent assay (DAS-ELISA) using polyclonal antibodies to the N proteins of TSWV and INSV (NL-07). ELISA-positive samples were mechanically transmitted to plants of *Petunia hybrida*, *Nicotiana rustica* and *N. benthamiana* to confirm infection. Although none of the samples was found infected with INSV, TSWV presence was recorded in 42 botanical species that belong to 40 genera in 27 families. Among them the species *Beloperone guttata*, *Coleus barbatus*, *Impatiens petersiana* and *Lilium auratum* are reported for the first time as hosts of TSWV, whereas *Begonia* sp., *Catharanthus roseus*, *Celosia cristata*, *Dianthus chinensis*, *Fuchsia hybrida* and *Stephanotis floribunda* are found as new hosts of the virus in Greece. Thrips collected from TSWV-infected plants were in most cases identified as *Frankliniella occidentalis*, except from plants of *Dendranthema* sp. and *Dianthus caryophyllus* where *Thrips tabaci* individuals were also identified. Different percentages of transmitters were noticed when the thrips populations collected from TSWV-infected ornamental hosts were tested for transmission of TSWV.

KEY WORDS: Ornamental hosts; ELISA; *Frankliniella occidentalis*; *Thrips tabaci*; Thripidae; transmission efficiency.

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