

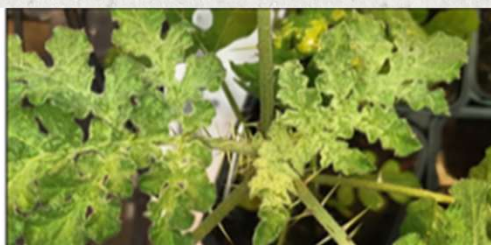
## *Solanum elaeagnifolium* and *S. rostratum* as potential hosts of the tomato rugose fruit virus



*Solanum elaeagnifolium*, *Solanum rostratum*, Tomato Brown Rugose Fruit Virus (ToBRFV), Invasive weeds



Israel



Invasive weeds pose a significant threat to agriculture, causing notable crop yield and economic losses. They serve as reservoirs for viruses, notably the tomato brown rugose fruit virus (**ToBRFV**), which has overcome resistance alleles in cultivated tomato varieties, leading to severe crop damage. This study investigates the potential of invasive weed species, particularly *Solanum elaeagnifolium* and *S. rostratum*, as hosts for **ToBRFV** and a mild strain of *pepino mosaic virus* (**PepMV-IL**). Results show susceptibility of *S. elaeagnifolium* and *S. rostratum* to **ToBRFV**, with *S. rostratum* also susceptible to **PepMV-IL**. Mixed infections in *S. rostratum* and *S. nigrum* plants display viral synergism, exacerbating disease symptoms. Bioassay experiments demonstrate transmission of **ToBRFV** from infected weeds to tomato plants, particularly concerning due to the distribution and abundance of these weed species, which increase the risk of virus transmission.

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