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## BIOLOGICAL PROPERTIES AND APHID TRANSMISSION OF SOME SEVERE CITRUS TRISTEZA VIRUS ISOLATES FROM DECLINING CITRUS TREES ON SOUR ORANGE ROOTSTOCK.

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*Additional index words.* virus indexing, ELISA

**Abstract.** Citrus tristeza virus (CTV) isolates were collected from groves severely affected by quick decline or dwarfing on sour orange rootstock and were biologically indexed by graft inoculation to five indicator citrus hosts. Most of isolates showed severe stunting and leaf flecking on Mexican lime. Typical seedling yellows reactions on Duncan grapefruit and sour orange, and stunting on Valencia on sour orange and Madam Vinous indicator plants were observed. Stempitting symptoms were not observed on Duncan grapefruit or Madam Vinous. All the isolates were readily transmitted by *Aphis gossypii*.

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## EVALUATION OF THE USE OF MILD STRAINS OF CITRUS TRISTEZA VIRUS TO MAINTAIN MATURE CITRUS TREES ON SOUR ORANGE ROOTSTOCK

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**Abstract.** A experiment was established to evaluate the condition of 15 year old trees on sour orange rootstocks located in an area undergoing tristeza quick decline after inoculation with two mild strains of citrus tristeza virus (CTV). Seven trees were graft inoculated using blind buds with each mild CTV strain (strains T30 and T26), and seven control trees left

noninoculated. All trees were infected with endemic CTV at the time of inoculation with the mild strains but appeared healthy. Using the double standard RNA analysis, it was found that mild strain T30 had become distributed in the inoculated trees after six months. Trees were evaluated 18 months after inoculation using a scale whereby 0=healthy to 4=dead tree. The average rating of control trees was 3.25 with 2 trees dead; T30 inoculated trees averaged 2.32 with 1 tree dead; and T26 inoculated trees averaged 1.78 with no trees dead. While the results are suggestive that some benefit may have been realized by the inoculation of these mild CTV strains into mature trees, further testing of this control method is needed.