

# APS Caribbean Division

## Abstracts

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DIAGNOSTICO DE VIRUS ASOCIADOS A LAS SOLANACEAS TOMATE Y CHILE EN EL SALVADOR. MSc. Roger Meneses, CATIE; Agr. Antonio Ramos, CENTA; Ing. Napoleón Ramfrez, FUSADES.

La investigación fue realizada, durante 1992 en siete departamentos de El Salvador. Las muestras fueron recolectadas en parcelas de 35 agricultores; éstas se analizaron mediante la técnica de ELISA (Enzyme Linked Immunosorbent Assay) para determinar el virus del mosaico del pepino (CMV), virus del mosaico del tabaco (TMV), virus Y de la papa (PVY), virus X de la papa (PVX), virus del grabado del chile (TbEV), y el virus de la marchitez bronceada (TmSWV).

Los resultados indicaron un menor porcentaje de virus transmitidos mecánicamente TMV y PVX (32% y 30% respectivamente). Los transmitidos por áfidos, PVY, CMV y TbEV fueron los más frecuentes (42%, 40% y 37% respectivamente). El virus de la marchitez bronceada TmSWV presentó un 40% de infección.

DESARROLLO DE CAPSICUMS RESISTENTES A VIRUS E INSECTOS PARA EL CARIBE. Benigno Villalón, Texas Agricultural Experiment Station, 2415 East Highway 83, Weslaco, Texas, 78596.

La popularidad creciente del chile ha creado una demanda excepcional para su producción en las regiones tropicales y templadas. El chile es afectado por enfermedades virósicas y sus vectores. El programa de mejoramiento genético se inició en 1970. Varios genotipos fueron identificados como poseedores de resistencia heredable a virus jaspeado del tabaco, moteado del chile, cucumovirus, virus Y de la papa, mosaico del tabaco y mancha anular. Estas plantas madres fueron cruzadas con las mejores variedades comerciales de bell, largo verde/rojo, jalapeño, serrano, ancho, pimiento, cayenne, cereza, y gueros. Mil líneas son evaluadas por año para resistencia a enfermedades, mosca minadora, picudo del chile, mosca blanca y stres al medio ambiente tropical. Existen ocho nuevas variedades. Se ha incorporado resistencia a *Phytophthora capsici*, regeneración a través de cultivo de tejidos en varios genotipos y transformación via *Agrobacterium tumefaciens*.

### Errata

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The following abstracts were omitted from the "Abstracts of Presentations at the 1990 APS Caribbean Division Annual Meeting," page 696.

**BIOLOGICAL EVALUATION OF SEVERE QUICK DECLINE AND DWARFING CITRUS TRISTEZA VIRUS ISOLATES FROM FLORIDA.** M.A. Rocha-Peña, R.F. Lee, and C.L. Niblett. University of Florida. Lake Alfred, FL 33850.

Citrus tristeza virus (CTV) has been in Florida for many years. Recently severe outbreaks of quick decline and dwarfing of trees on sour orange rootstock have been observed in several areas, with loss estimates of up to 50% in some localities. This study was conducted to characterize the biological properties of several CTV isolates occurring in newly affected groves. Five indicator citrus species were inoculated with each of 10 CTV field isolates from either quick decline or dwarfed trees. Inoculated plants were maintained at 20–32°C in a greenhouse for symptom development. The host reaction of each CTV isolate, as well as the relative virus titer in each host, were recorded.

**CITRUS SPECIES AS DONOR HOSTS FOR LEAF PIECE GRAFT TRANSMISSION STUDIES WITH CITRUS TRISTEZA VIRUS.** M.A. Rocha-Peña, R.F. Lee, and C.L. Niblett. University of Florida, Lake Alfred, FL 33850.

Citrus tristeza virus (CTV) can be transmitted by various grafting procedures. Leaf piece grafts have been used when the supply of inoculum tissue is limited and a large number of plants have to be inoculated. In this study, four citrus species were tested for leaf piece graft transmission with several CTV isolates. Differences were found in the rates of CTV transmission with different donor-receptor host combinations. In some cases no infection was observed even when the grafted tissue remained alive on the receptor host for more than two months. The suitability of different citrus species as donors and receptors for leaf piece grafting and the distribution of the virus in different tissues in the plant are evaluated.