Project: Screening for Genes Involved in Resistance to Tomato Spot Wilt in Cultivate Peanut ends 12/31/2003

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The project was initiated in July of 2002. The first step in the research was to establish a colony of thrips to use for inoculation of a resistant peanut cultivar. Several methods of rearing thrips were tested before a satisfactory method was found. We now have four separate thrip colonies that are healthy and reproducing well. Elisa tests have been performed on several peanut plants maintained in the greenhouse to identify a source of inoculum for the Tomato Spotted Wilt Virus (TSWV). Due to the onset of cooler temperatures, plants infected with TSWV have been difficult to identify. There are currently no growth chambers available for growing plants in conditions more suitable for TSWV infection. Therefore, the research will re-commence in the early Spring when sources for inoculum are available in the greenhouse or field. Thrip colonies will be maintained in the lab until that time. We have also trained our technician to isolate bacterial colonies, extract plasmid DNA and sequence colonies on the Beckman CEQ 8000 that is housed in the Plant Genetic Resources Conservation Unit genetic analysis lab.