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Inheritance of a tolerant reaction to *Tomato chlorosis crinivirus* in tomato

(Herança de uma reação de tolerância ao *Tomato chlorosis crinivirus* no tomateiro)

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Outbreaks of *Tomato chlorosis virus* (ToCV) (genus *Crinivirus*, family *Closteroviridae*) have been observed reported causing yield and quality losses in field and greenhouse-grown tomatoes in distinct growing regions of Brazil. A *Solanum lycopersicum* breeding line (named 'LAM 148') was identified as one of the best sources of tolerance to ToCV to Brazilian isolates of ToCV. The genetic basis of resistance to ToCV isolate was investigated using F_2:F_3 populations derived from the interspecific cross between 'LAM 148' (P_1) and the susceptible *S. pimpinellifolium* line 'CNPH 1678' (P_2). Parental lines, F_1, F3 families were inoculated at the greenhouse conditions using natural viruliferous whiteflies. Assessment was done 70 days after natural exposition to the viruliferous vector. The analysis was conducted based upon visual symptoms and checking for the presence of the virus in the leaf tissues via dot-blot analysis. The phenotypic expression of the resistant plants was characterized as tolerant response by mild reduced systemic symptoms and by lower levels of viral RNA accumulation. Ratio of resistant to susceptible plants closely fit to a single recessive gene (locus) model. This gene/locus, was tentatively named *tct-1* (*tomato chlorosis tolerance-1 gene*) and it is now being incorporated into elite breeding lines.