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Grafting onto “baquicha” confers super protection on tomato against bacterial wilt.

Lopes C. A.¹, Mendonça J. L.¹, Rossato M.²

¹Embrapa Hortaliças, Brazil; ²Department of Plant Pathology, Universidade de Brasília, Brazil.

mauricio.rossato@unb.br

Bacterial wilt, caused by the soilborne bacteria *Ralstonia solanacearum* (race 1, biovar 1 and 2, phylotype II) and *R. pseudosolanacearum* (race 1, biovar 3, phylotype I), is highly destructive in tomato cultivated in under high temperatures and high soil moisture, common conditions in open field and under greenhouse. Cultivars available in Brazil are susceptible to bacterial wilt, but losses can be significantly reduced if they are grafted onto resistant tomato rootstocks, a technique well accepted especially among growers of greenhouse-grown high-value tomatoes. However, the protection offered by the available hybrid rootstocks is not stable and can be overcome in the presence of highly virulent variants of the pathogen, reported in Brazil and elsewhere. The objective of this study was to evaluate the reaction of the thornless *Solanum stramonifolium* access, known as “baquicha”, with four isolates of the *Ralstonia* species complex, RS 476 (race 1, biovar 3, phylotype I); RS 488 (Race 1, biovar 2, phylotype II); RS 594 (race 1, biovar 3, phylotype I) and RS 652 (race 1, biovar 1, phylotype II), previously selected for their geographical region and differential virulence on putative-resistant tomato rootstocks. The experiment was run with artificial root inoculation (5×10^7 ufc/mL) on 30-day old tomato seedlings, in three replicates of six plants each, under greenhouse conditions (20-40°C). “Baquicha” was compared with susceptible cultivars Kiara and Duradoro and with the resistant rootstock ‘Muralha’ (Takii Seeds), which, in previous experiment, ranked among the best for resistance when compared to other commercial hybrid rootstocks released as resistant to bacterial wilt. Seven days after inoculation, all plants of the susceptible cultivars were totally wilt, whereas plants of “baquicha” were symptomless, condition that persisted up to 20 days after inoculation. The resistance of ‘Muralha’ was effective only to isolate RS476, being overcome specially to isolate RS 652.