



DWARFING ROOTSTOCKS FOR 'VALENCIA' SWEET ORANGE

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The Brazilian citrus industry is requiring the use of rootstocks adapted for use in high planting densities with elevated production efficiency of high quality fruits, and tolerant/resistant to abiotic and biotic stresses. Hybrid rootstocks have been obtained by the Citrus Breeding Program of Embrapa Cassava & Fruits, in Cruz das Almas, Bahia State, Brazil. Under rain-fed cultivation, the first four commercial crops of 'Valencia' sweet orange budded onto several rootstocks were evaluated in the municipal district of Colômbia, São Paulo State, Brazil (20° 19' S, 48° 41' W, 492 m a. s. l.). Results indicated that the hybrids TSKC (Sunki mandarin) x [LCR (Rangpur lime) x TR (trifoliolate orange)] - 001, - 017, - 059 and - 073, TSKC x CTSW (Swingle citrumelo) - 033 and - 041, LCR x TR - 001, LVK (Volkamer lemon) x LCR - 038 and HTR (trifoliolate hybrid) - 051, - 053, - 069 and - 116 would allow planting densities higher than those attained with the use of vigorous rootstocks. They also induced higher production efficiency (kg of fruits/m³ of canopy) and fruits with greater or equivalent juice quality in relation to Rangpur lime, the usual rootstock in Brazil. Additionally, LCR x TR - 001, TSKC x CTSW - 041, TSKC x (LCR x TR) - 059 and LVK x LCR - 038 induced enhanced tolerance to drought and more precocious fruit bearing to 'Valencia' sweet orange with results similar to Rangpur lime.