Large-Scale Field Evaluation of Grapefruit Scion/Rootstock Combinations to Identify Potential Tolerance Against Huanglongbing

A variety trial study was conducted to determine the fittest potential of tolerant grapefruit scion/rootstock combinations in the Indian River District (IRD) and Central/West (C/W) growing regions of Florida. Seven scions (‘Rio Red’, ‘Star Ruby’, ‘Flame’, RG UF N40-16-11-7, R Pum UF KW-1-50, ‘Jackson’, and G UF N40-16-11-11) and six rootstocks (US-1691 [SS1], UFR-4, UFR-5, US-802, US942, and X-639) developed by the University of Florida and the U.S. Department of Agriculture were evaluated. Each block consisted of 42 combinations, seven trees per combination spaced 10 x 25 ft, planted between Fall 2020 and Spring 2022. The growers utilized their own cultural practices on each experimental site. Preliminary data shows G UF N40-16-11-11 as the scion with the thickest canopy volume when grafted in 3 of the 6 rootstocks tested in the IRD, followed by ‘Flame GFT’, R Pum UF KW-1-50, and ‘Rio Red’. In the C/W region, G UF N40-16-11-11 was also the scion with the greatest canopy volume when grafted in 4 of the 6 rootstocks tested, followed by ‘Flame GFT’, R Pum UF KW-1-50, and ‘Rio Red’. The canopy volume and height of the trees planted in the C/W region was more prominent due to planting dates earlier than most of the IRD blocks. As the trial is still in its first phase, further data are necessary to determine the most appropriate combination for each region.

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