

Thirteen tomato (*Lycopersicon esculentum* L.) genotypes were subjected to salt treatment under hydroponics and their responses monitored in a set of two experiments with the objective of advancing them as potential salt tolerant tomato scion and/or rootstocks. Salt applications ranged from 0 to 2% NaCl, with the resultant EC values of 1.4 to 37 dS m⁻¹, respectively. Genotypes were cultured in the experimental solutions for up to four weeks in the greenhouse. Significant genotypic and/or salt treatment effects were registered on plant height, leaf green meter value and area, dry matter yield, Na⁺ and Cl⁻ accumulation in tomato tissues. Salt treatment at 2% NaCl stimulated chlorophyll production, but caused severe depression on dry matter yield and leaf area. Some tomato genotypes consistently showed superior biological activity at higher salinity and others exhibited greater shift in the shoot:root ratio (from 8:1 to 5:1 for 'First'), based on dry matter biomass production thus displaying relatively greater adaptation to salt stress. Two tomato genotypes ('Siozawa' and 'Gambaru Ne-3') displayed superior performance.