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Screening for salinity tolerance in pigeonpea (*Cajanus cajan* L.) and groundnut (*Arachis hypogaea* L.)

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Salinity affects plant growth, development and yield in approximately 100 M ha of arable land worldwide. Besides the various management options available, the introduction of salinity tolerant varieties in such areas could partly ease the increasing global food demand. Here, six groundnut (ICGV 86031, TAG 24, JL 24, ICGS (FDRS)-10, ICGS 44, ICGS 76) and pigeonpea (ICPL 88034, ICPL 88039, ICPL 87119, ICPL 96058, ICP 7035, ICPL 366) genotypes, were screened by conducting two experiments in soil treated with five different NaCl (mM) concentrations (0, 50, 100, 125, 150) and (0, 50, 75, 100, 150) respectively for both the crops, under controlled conditions. Salt concentration of 125 mM was found to be the critical to screen groundnut genotypes and 75 mM for pigeonpea. Among all groundnut genotypes, ICGS 44 and ICGS (FDRS)-10 were found tolerant, showed relative reduction in leaf area compared to control. Thus, leaf area can be a good proxy to screen groundnut genotypes. For pigeonpea, SCMR was positively associated with tolerance, which can be used as an indicator for salinity screening and ICPL 88039 was tolerant among six the pigeonpea genotypes.

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