

PROJECT TITLE

Phenotyping for induced responses to salt stress at shoot and root level in selected multiple resistant and tolerant genotypes of potato

CONSORTIUM

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SUMMARY OF THE REPORT

The aim of this collaboration in the TA project was to characterize multiple resistant and tolerant genotypes of potato with introgressions of DNA from the wild *Solanum* resistant species i.e. *S. chacoense* and *S. pinnatisectum* by using high throughput phenotyping tools. The introgressions were obtained by protoplast electrofusion and somatic hybrid plant regeneration and *in vitro* micropropagation and storing as microtubers. A preselection *in vitro* with 2-3 concentrations of NaCl and 5 replicates was done to select the interesting genotypes for further phenotyping. The results indicated two tolerant somatic hybrids and one backcross progeny that also combine the tolerance with other resistance traits like Colorado potato beetle resistance, PVY resistance and drought tolerance.