

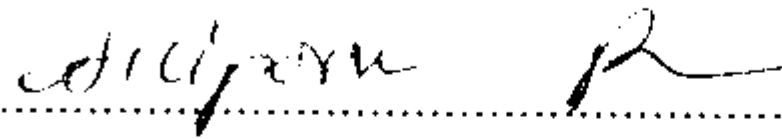
ABSTRACT

Title : Genetic variation amongst potato somaclones SC₁

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Somaclones (SC₁) of four commercial potato cultivars (Kennebec, Spunta, Atlantic and Russet Burbank) regenerated from internode explants were analyzed for variability under greenhouse condition. Apparent morphological variation in stem, leaf, flower and tuber characters from the respective control population were observed in all somaclonal populations with total frequencies as percentage of SC₁ plants of 49.3 % (Kennebec), 47.2 % (Spunta), 11.9 % (Atlantic) and 8.0 % (Russet Burbank).

Mean values for stem number, tuber number and tuber weight per plant in the SC₁ population of cv. Russet Burbank were significantly ($P \leq 0.01$) higher than the respective control value while that for plant height was not significantly different from the respective control value. Mean values for plant height, tuber number and tuber weight per plant in the SC₁ population of cv. Kennebec were not significantly different from the respective control value while that for stem number per plant was significantly ($p \leq 0.01$) higher than the respective control value. Mean values for stem number, tuber number and tuber weight per plant in the SC₁ population of cv. Atlantic were not significantly different from the respective control value while that for plant height was significantly ($p \leq 0.01$) lower than the respective control value. Mean values for plant height, tuber number, stem number per plant in the SC₁ population of cv. Spunta were significantly ($p \leq 0.05$, 0.01) higher than the respective control value while that for tuber weight per plant was not significantly different from the respective control value.