

EFFECTS OF LEAF AGE AND ENZYME DIGESTION PERIOD ON THE PROTOPLAST YIELD IN POTATO

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ABSTRACT

Excised leaves from 5-7 week old greenhouse plants of two genotypes, Clone 6-7 and Granola, were preconditioned for 2 days in the dark at 4° C and 1 day in the dark in the conditioning medium for protoplast isolation. Samples were digested in enzyme solution for 8 and 16 hours. Then they were purified by centrifugation in Babcock bottles. Washed protoplasts were counted with a hemocytometer and protoplast yield was calculated. It was found that protoplast yield was affected by enzyme digestion period and leaf age as well as by genotype.