ISHS Acta Horticulturae 560: IV International Symposium on In Vitro Culture and Horticultural Breeding

TRANSFORMATION OF BEAN CALLUS BY USING HIGH-VELOCITY MICROPROJECTILES

Authors: E. Eissa Ahmed, GY. Bisztray, I. Velich

Keywords: *Phaseolus vulgaris*, common bean, callus, transformation, hygromycin

DOI: 10.17660/ActaHortic.2001.560.19

Abstract:

By using hypocotyl explant and vertical culture on B5 medium containing l mg/l kinetin and 2 mg/l 2,4-D, we obtained a rapidly growing callus from bean. We found that 25 mg/l hygromycin(Hgm) was enough to differentiate transgenic cells from the non-transgenic ones. The GeneBooster particle delivery system was used for the bombardment of callus and the Hgm resistance gene was used as a selectable marker. Selective test was made by using medium containing 25 and 30 mg/l Hgm to screen for transformants calli. After selection on Hgm-containing media, several Hgm resistant growing calli were obtained. Selective pressure was maintained over a period of 13 month for transformation tests.