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Expression of the β -glucuronidase(GUS) in Transgenic Soybean Obtained Using *Agrobacterium tumefaciens*-mediated Transformation

Jeong-Suk Bae^{1*}, Bong-Ho Lee¹ and Suk-Ha Lee²

¹Institute of Bioresources, Gyeongbuk Provincial Agricultural Technology Administration, Andong 760-891, Korea. ²School of Plant Science, Seoul National University, Suwon 441-744, Korea

Objectives

To evaluate the effect of several factors in soybean cotyledonary node transformation and to assay GUS expression

Materials and Methods

1. Plant materials : cotyledonary node of soybean
2. Agro. strain : LBA 4404, pBI121
3. Methods: Cotyledonary node transformation(Zhang et al, 1999)
GUS assay(Jefferson et al, 1987)

Results and Discussion

The soybean has been one of the most recalcitrant crops to genetically engineer probably because of the difficulty in regenerating plants from specific cells of tissues once they are transformed. The cotyledonary node of soybean, that is known to be able to produce numerous shoots by organogenesis to produce fertile transformed plants. Out of eleven genotypes, shooting were induced from cotyledonary node explants in all genotypes. Iksannamulkong was observed the highest rate(80.5%). The GUS expression was observed in the progeny of the high expression in the T2 generation seeds.

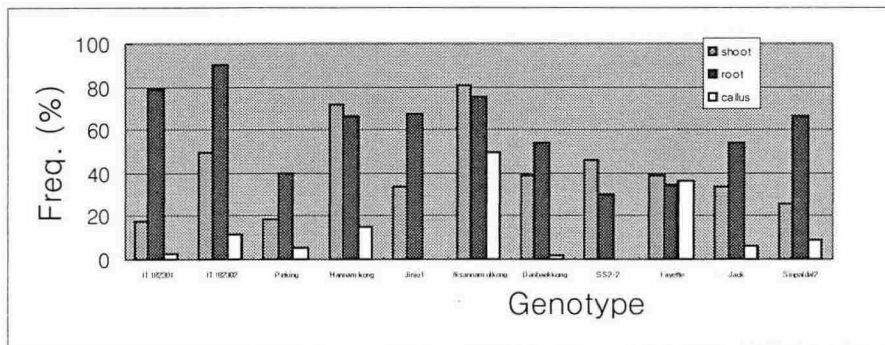


Fig. 1. Genotypic differences on shoot, root and callus from cotyledonary node of soybean transformation.

*Corresponding author: Jeong-Suk Bae, TEL: 054-859-5123; E-mail: jsbae24@empal.com