Transformation of Brassica oleracea var. capitata with bacterial bet A gene enhances tolerance to salt stress. Sci

Abstract
The bacterial betA gene for biosynthesis of glycinebetaine was transferred to cabbage (Brassica oleracea var. capitata) cultivar 'Golden Acre' through Agrobacterium-mediated transformation of hypocotyl explants. Transgenic status was established through Southern hybridization and mRNA expression in the shoots. The transformants exhibited higher tolerance to NaCl stress compared to untransformed parent plants. In physiological assessment of salinity tolerance, transgenics showed better growth response and greater stability in maintaining plant water relations at increasing levels of salinity. These results demonstrate that engineering glycinebetaine biosynthetic pathway into cabbage can lead to enhanced salt tolerance

Keywords: biosynthesis, glycinebetaine ,transferred ,cabbage.