

ชื่อเรื่อง

## In Vitro Induction of Salt Tolerance in Vetiver Grass

ชื่อผู้วิจัย

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### Abstract

Vetiver grass (*Vetiveria zizanioides* Nash) ecotype Sri Lanka was induced for salt tolerance by culturing calli from young inflorescence on MS medium supplemented with 5  $\mu$ M 2,4-D and 0.5-3.0% NaCl, at 0.5% intervals for 45 days. At 0.5-1.5% NaCl, 100% of calli survived. At 2, 2.5, and 3.0% NaCl, their survival percentage dropped to 82.5, 25, and 0%, respectively. The surviving calli regenerated to plantlets when transferred to hormone and NaCl free MS medium for 30 days. However, the regeneration percentage declined with an increased concentration of NaCl. The 1.0-2.0% NaCl treated calli regenerated only 10-20% while there was no regeneration in 2.5% NaCl. All obtained plantlets were tested for their salt tolerance by culturing on MS medium with NaCl at the same level as their calli were treated, in comparison with the untreated plantlets. The result showed that the survival percentage of treated plantlets at each concentration of NaCl was higher. They tolerate up to 15% NaCl while the normal plant can tolerate nothing higher than 1.0% NaCl.