

# **Effect of salt strength, Polyamines and medium matrix materials on the regeneration and the growth of Plantlets from meristem culture of *Aloe***

Chang-Yeon Yu, In-Su Jeon, Sang-Deuk Ahn, Dong-Ha Cho  
and Byong-Ho Chang

Department of Plant Resources, College of Agriculture  
Kangwon Natinal University, Chuncheon 200-701, Korea

*Aloe* belongs to the *Lilaceae* family. The genus comprises about 300 perennial species, native to both eastern and southern Africa. The juice from the leaves of certain species yields a medical substance named as aloe drug. The aloe drug contains anthracene derivatives occurring either (anthraquinones: 0.05-0.5%) or in the form of glycosides, usually containing glucose. Free anthra-quinone compounds are aloe-emodin and chrysophanic acid. Recently, in Korea, *Aloe* was used as various useful materials in spite of the importance of the aloe in officinal and industrial fields, in vitro culture of *Aloe* species has little attention. Thus, this experiments were conducted to determine the effect of salt strength, polyamines, and medium matrix on the plantlet regeneration and growth as an rapid mass propagation system in vitro meristem culture of *Aloe vera* L. and *Aloe arborscens* Mill. The meristem segments of *Aloe* were cultured on different levels of salt strenght of Murashige and Skoog medium with various concentrations of growth regulators. Also, explants were cultured on medium containing different levels of polyamines such as spermine, spermidine, and putrescene. Different medium matirixes were added to the medium. Callus formation, shoot regeneration, and growth were recorded agter culture.