



Effect of various concentrations of plant growth regulators and commercial sugar on meristem tip culture on commercial sugarcane variety CoA92081 (87A298)

D. ADILAKSHMI*, K. PRASADA RAO, M. CHARUMATI, P. BEBI AND K. JAYACHANDRA
Department of Plant Breeding, (A.N.G.R.A.U.), Regional Agricultural Research Station, Anakapalle,
VISAKHAPATNAM (A.P.) INDIA (Email : adilakshmi87@gmail.com)

Abstract : The effect of plant growth regulators and commercial sugar concentration on *in vitro* morphogenesis of commercial sugarcane variety CoA92081 (87A298) through meristem tip culture was tested. Data on initiation (%), multiplication (%), effect of NAA on rooting (%) and effect of NAA and sugar concentration on rooting (%) were subjected for statistical analysis. Initiation was found to be superior at MS media supplemented with 0.20mg/l BAP and 0.1mg/l KN (80.17) followed by multiplication at MS media supplemented with 0.25mg/l BAP and 0.1mg/l KN (84.15) which was significantly superior over other treatments. Rooting per cent was found to be superior at ½ strength MS media supplemented with 5mg/l NAA with 3 per cent sugar (51.48). Among various concentrations tested, 3 per cent commercial sugar appeared to be optimum for shoot regeneration and the same can be used for multiplication and 4 per cent commercial sugar appeared good for rooting along with 5mg/l NAA (84.43). This protocol provides a successful technique that can be used for rapid propagation.

Key Words : BAP, KN, Micro propagation, NAA, Sugarcane

View Point Article : Adilakshmi, D., Rao, Prasada K., Charumati, M., Bebi, P. and Jayachandra, K. (2013). Effect of various concentrations of plant growth regulators and commercial sugar on meristem tip culture on commercial sugarcane variety CoA92081 (87A298). *Internat. J. agric. Sci.*, **9**(1): 163-167.

Article History : Received : 14.07.2012; Revised : 25.09.2012; Accepted : 13.11.2012