

The study of bud culture and plant proliferation of napiergrass (*Pennisetum purpureum*)⁽¹⁾

Yih-Min Shy⁽²⁾⁽⁵⁾ Tzu-Rung Li⁽³⁾ and Cherng-Kang Liao⁽⁴⁾

Received: Feb. 13, 2015; Accepted: Apr. 23, 2015

Abstract

The object of this study was to establish a system for bud culture and plant proliferation of napiergrass for preservation of cultivar TLG 1, TLG 2, TLG 3, TLG 4 and TLG 5. The buds of cultivar TLG 3 were used as explants and cultured on MS medium with TDZ (0.05, 0.25, 0.5, 1, 2 mg L⁻¹) or BA (0.5, 1, 2, 4, 8 mg L⁻¹). The number of bud induction and plant height were examined 8 weeks after culture. The average number of bud per plant was increased with BA and TDZ concentration but plant growth was inhibited include plant height, root number and root length. From those results, the bud culture system was effective for preservation of napiergrass cultivar.

Key words: Bud culture, Plant proliferation, Napiergrass.

(1) Contribution No. 2225 from Livestock Research Institute, Council of Agriculture, Executive Yuan. R.O.C.

(2) Hsinchu Branch, Livestock Research Institute, Council of Agriculture, Executive Yuan. R.O.C.

(3) Forage Crops Division, COA-LRI, Hsinhua, Tainan 71246, Taiwan, R.O.C.

(4) Department of Agronomy, National Chiayi University, Chiayi 600, Taiwan, R.O.C.

(5) Corresponding Author, E-mail: emshy@mail.tlri.gov.tw.