Pelestarian plasma nutfah tanaman sukun *(Artocarpus a/tills* L.) secara *in vitro(Penelitian Dasar)*

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ABSTRACT

In vitro experiments have been carried out to determine the combination of concentrations of NAA and BAP to promote the growth of breadfruit explant. The experiments have also aimed at determining suitable concentration of mannitol in preserving the breadfruit germplasms. The experiments have been conducted at the Plant Tissue Culture Laboratory, Department of Agronomy, Faculty of Agriculture, Andalas University Padang from February to September 2006. There were two series of experiments. The first had 8 treatments as follows: 0,25 ppm NAA + 1,75 ppm BAP + 0,10 ppm Kinetin (A); 0,25 ppm NAA + 3,50 ppm BAP + 0,10 ppm Kinetin (B); 0,50 ppm NAA + 1,75 ppm BAP + 0,10 ppm Kinetin (C); 0,50 ppm NAA + 3,50 ppm BAP + 0,10 ppm Kinetin (D); 0,75 ppm NAA + 1,75 ppm BAP + 0,10 ppm Kinetin (E); 0,75 ppm NAA + 3,50 ppm BAP + 0,10 ppm Kinetin (F); 1,0 ppm NAA + 1,75 ppm BAP + 0,10 ppm Kinetin (G); and 1,0 ppm NAA + 3,50 ppm BAP + 0,10 ppm Kinetin (R). The second experiment had seven treatments as follows: 0,0 g mannitol/L media (A); 5,0 g mannitol/L media (B); 10,0 g mannitol/L media (C); 15,0 g mannitol/L media (D); 20,0 g mannitol/L media (E); 25,0 g mannitol/L media (F), and 30,0 g mannitol/L media (G). The media used was Woody Plant Medium (WPM) with 20 g/L sucrose, 8 g/L agar, 2 g/L active charcoal, and pH 5.8. Every experimental units in both experiments were arranged in a completely randomized block design with 4 replicates. Data were analysed with ANDV A at 5% level of confidence and Duncan's New Multiple Range Test when necessary. Results show that 0.50 ppm NAA + 3,50 ppm BAP + 0,10 ppm kinetin resulted in the best growth of the breadfruit explant regarding its highest number of living explant and plantlet formed. Shootlet growth was promoted by the 0.25 ppm NAA + 3,50 ppm BAP + 0,10 ppm kinetin treatment. Mannitol at 20 g/L medium is the best treatment for the purpose of the preservation of the breradfruit germplasms *in vitro.*