

## **In vitro propagation of *Zingiber officinale* Rosc. 'Tambunan'**

### **Abstract**

Rhizome buds of ginger (*Zingiber officinale* Rosc. 'Tambunan') were sterilized and cultured on Murashige and Skoog (MS) medium supplemented with different concentrations and combinations of NAA and BAP hormones (1-3 mg/L) to induce shoot multiplication and rooting formation. Shoot formation was first observed on treatment of 3.0 mg/L BAP + 1.0 mg/L NAA after 7 days of culture. This treatment also promote the highest number of proliferated shoots,  $6.14 \pm 0.91$  shootlets per explant, with an average shoot length of  $1.69 \pm 0.17$  cm observed after 10 weeks of culture. Rooting of ginger plantlets were significantly initiated on medium supplemented with 2.0 mg/L NAA. This treatment induced up to  $34.40 \pm 1.81$  roots per explant with an average length of  $4.52 \pm 0.20$  cm after 10 weeks of culture. Plantlets were successfully acclimatized in pot containing medium mixture of sand and clay (1:4) with 64% of survivality after transplanted for 3 weeks.