In Vitro Propagation of *Zingiber spectabile*

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Abstract

*Zingiber spectabile* is a high potential, new and developing tropical ornamental flower. The economical value of *Zingiber spectabile* is on cut flower and potted flower. The purpose of this experiment was not only to develop a effective *in vitro* method to mass-propagate *Zingiber spectabile* in a short period of time, but expected to be used for the materials of future transgenic plant. Now, it could be achieved for adventitious bud regeneration via lateral bud cultured. But plantlet couldn’t be induced from the regenerative adventitious bud on the MS medium supplemented with BA 2mg/l with NAA or IAA. The other study show that appropriate addition of 0.05~0.1mg/l ABA promotes normal organogenesis and shoot growth. Now, we can compare the effects between several kinds of plant growth regulator for adventitious buds induction to obtain the best combination, and that adventitious shoots regeneration system in *Zingiber spectabile* could be established. Sheath and root explants, cultured in VW medium containing 5mg/l 2,4-D \( \times \\) 0.5mg/l BA \( \times \) 3\% sucrose and 200ml/l coconut water, could be induced to form callus. However, only root-derived callus could produce lots of somatic embryos from the surface of calli.

Key words: *Zingiber spectabile*, tissue culture, mass propagation

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