

## **In vitro growth response of explants and micropropagation of Brassica oleraceae L. Var Capitata**

### **ABSTRACT**

Experiments were carried out to establish optimum culture condition and to identify the most responsive explants for regeneration of Brassica oleraceae L. var Capitata through plant tissue culture system. The experiment was induced by manipulating various growth regulators during organogenesis using stems, petioles, leaves and roots as explants. The experimental design of this study was Complete Randomized Design (CRD) method. For shoot regeneration using different concentrations of BAP and NAA, the most responsive explant was stem explants in which MS medium supplemented with 1.5 mg/L BAP and 0.5 mg/L NAA produced  $8.400 \pm 0.889$  shoots per explant. Whereas, for root regeneration using different concentrations of BAP and NAA, the most responsive explant was leaf in which MS media supplemented with 0.5 mg/L BAP and 0.5 mg/L NAA produced  $51.133 \pm 2.929$  roots per explant. This research showed that a morphogenesis study of Brassica oleraceae L. var Capitata through tissue culture system was successfully achieved. This study could lead to the better research and development (R&D) for vegetables in the future