

THE PROPAGATION OF *Ocimum tenuiflorum* BY CUTTING

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Summary

Ocimum tenuiflorum is one of the medicinal herbs that is a great value in the treatment of respiratory tract, diarrhea, headaches, and cosmetics. Used multiplication by seed was reduced due to ratio of low germination. In order to overcome this disadvantage, the propagation of *Ocimum tenuiflorum* by cutting method has been tested. The experiment results showed that: in two growth regulators (IBA and NAA), using cutting in IBA at 1000 ppm concentration was a higher rooting rate than in NAA. Cuttings were taken from 6 months old tree and treated with IBA growth regulator at 1000 ppm, fine sand 100% had a highest survival rate, rooting rate and the best root quality. The survival rate was from 81% to 91%, the rooting rate fluctuated from 67 -78%, and number of roots per cutting ranged from 3.7 to 4.7 roots, the average root length was from 3.6 to 4.1 cm after 6 cutting weeks. The study results can be applied to produce seedling. This result indicates that propagation method by cuttings is more cost-effective than seed multiplication of *Ocimum tenuiflorum* and can meet the demand for commercial production of medicinal plants.

Keywords: *Ocimum tenuiflorum*, growth regulators, cutting, rooting rate.