

# Cutting Propagation of *Melastoma dodecandrum* Lour.

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## Introductions

Diren (*Melastoma dodecandrum* Lour.) is a creeping sub-shrub from Melastomaceae. It is evergreen or semi-evergreen, native to S. China and Vietnam.

It is a great groundcover plant for arid soil conditions. Under full sun, the plant completely colonizes some bare land and blooms beautifully from June to October. Diren is reproduced by seeds, but germination rate is low. This study is to investigate the vegetative propagation of Diren.

## Materials and Methods

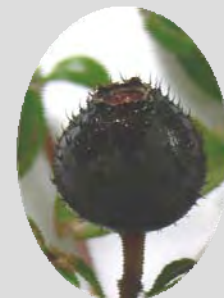
Cuttings were collected from Wangcheng Garden in October, treated with liquid and powder rooting hormones, and then placed under plastic tunnels with automatic mist systems. The humidity was ~85% and the temperature 20°C. Eight treatments were CK (control), NAA 500mg-L<sup>-1</sup>, NAA 1000 mg-L<sup>-1</sup>, NAA 2500 mg-L<sup>-1</sup>, IBA powder 8000 mg-L<sup>-1</sup>. Cuttings were treated with NAA liquid for 15s or 30s. Rooting percentages, number of roots per cuttings and total root length were measured after two months. A complete randomized block design was employed in this experiment and all data were analyzed using an ANOVA and LSD mean separations.



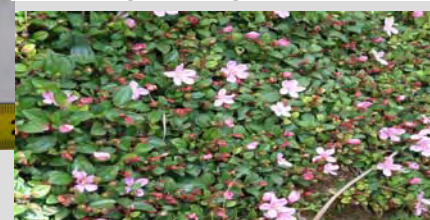
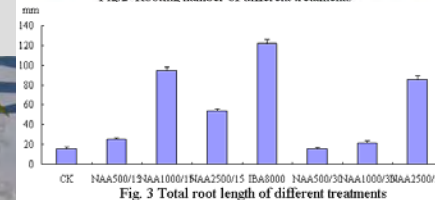
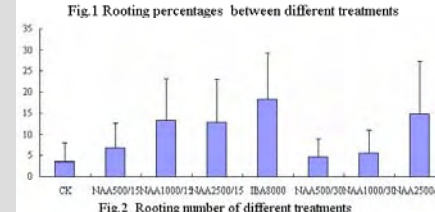
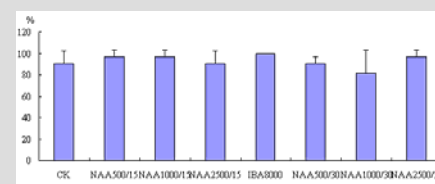
## Results and Discussion

Cuttings with 8,000 mg-L<sup>-1</sup> IBA powder reached 100% rooting, while no significantly change between different treatments (Fig.1). Number of roots per cuttings significantly increased with rooting hormone treatments.

The highest number was 18.4 with application of 8,000 mg-L<sup>-1</sup> IBA powder, which was 6 times higher than the control. As the liquid hormone concentrations reduced from 2,500 mg-L<sup>-1</sup> NAA to 500 mg-L<sup>-1</sup> NAA, number of root per cutting decreased from 14.8 to 4.7. Number of roots was more when treated for 15s than 30s (Fig.2). Total root length was increased with rooting hormones. Cuttings with 8,000 mg-L<sup>-1</sup> IBA powder produced 122.4 cm of roots, 8 times higher than CK(Fig.3).



Diren could be produced with stem cuttings. Under 8,000mg-L<sup>-1</sup> IBA powder, or 1000 mg-L<sup>-1</sup> NAA liquid, we could root high-quality plants for Zone 7-10 landscapes.



## Reference

Wu, D.F & J.S. Lin. 2005. Native ground-cover plant – Diren. Gardening 3:39.