

STUDY ON ROOT ANATOMY AND DETERMINE THE PARTS AND LENGTHS OF ROOT SEGMENTS FOR VEGETATIVE PROPAGATION OF *Dysosma tonkinense* (Gagnep.) M. Hiroe (Berberidaceae)

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Summary

Dysosma tonkinense (Gagnep.) M. Hiroe (Berberidaceae) is a precious medicinal plant with most of its distribution occurring within Vietnam and Southern area of China. The dried roots and rhizomes of *D.tonkinense* have been used in folk medicine for the treatment of poisonous snake bite, ulcer; recently studies reported that podophyllotoxin content in roots and rhizomes of all species of *Dysosma* Woodson. genus have been used for treated cancer. Study on root anatomy and arising adventitious shoot of root showed that the root of *D. tonkinense* include epidermis, cortex (parenchyma), endodermis, pericycle/cambium and pith (parenchyma); adventitious shoots originated to layer of cells of root pericycle/cambium. In vegetative propagation of *D. tonkinense*, old parts of root has sprouting rate higher than middle parts and young parts of root (with sprouting is 80.6 percents). Both root segments cutting (1 cm to 15 cm length) and whole root (> 30 cm length) have abilities to sprout with highest sprouting in whole root (94.7 percents).

Keywords: *Dysosma tonkinensis*, anatomy, adventitious shoot, vegetable propagation.