

Rooting study of cuttings form *Camellia amplexicaulis* (Pit.) Cohen-Stuart

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The callus rate, rooting rate and rooting site of annual lignified or semi-lignified branches of *Camellia amplexicaulis* were researched from three different factors, which were exogenous hormones, hormone concentration and hormone soaking time.

The results showed that the callus formed about 15 days after treated by hormones. The highest callus rates appeared when cutting seedlings soaked in 1000mg/L IBA for 0.5hour.

The results showed that the main factor affecting the rooting rate of was hormone concentration, then the soaking time and hormone type. The highest rooting rate appeared when cutting seedlings soaked in 500mg/L IBA soaking for 1 hour, followed by 1000mg/L ABT-1 for 1 hour. The lowest rooting rate appeared when cutting seedlings soaked in 250 mg/L of ABT-1 for 1 hour.

The rooting process of cuttings was observed through the microexamination of slices. The results showed that root primordium grew from Phloem and then broke through the cortex and epidermis. Finally, the complete roots formed.