

## Tissue culture in Sutsuki azalea (*Rhododendron indicum*): Role of three various cytokinins on shoot propagation and node formation

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*Rhododendron indicum* (Sutsuki azalea) called for Ericaceae, evergreen shrubs, flowers are one the world-famous in the gardens and have a high use value. As one travels across North Carolina it is quite evident that azaleas are favorite ornamental plants for home gardeners and professional landscapers. The true *R. indicum* from Japan (1883) is a small, dense, semi-evergreen azalea rarely reaching three feet in height.

Adventitious shoot propagation is one of the plant regeneration pathways *in vitro*, and is employed extensively in plant biotechnology for micro propagation and genetic transformation, as well as for studying plant development.

The composition of different cytokinins on shoot propagation and node formation, are presented in this research, after 10 weeks. After sterilization, shoot tips of *Rhododendron indicum* with 15 mm length were collected and terminal meristems were cut. Explants were established on ½ Anderson medium with different cytokinins. Hormonal treatments studies in this stage included three levels of 2ip (0, 2, 10), zeatin (0, 0.1, 0.5) and TDZ (0, 0.04, 0.2) mg/l that combination of two cytokinins together were studied. The result showed that 10 mg/l 2ip with 0.1 mg/l zeatin was the best treatment for increasing shoot length and node number and 10 mg/l 2ip with 0.2 mg/l TDZ was the best treatment for increasing shoot number.

### Biography

Saiedeh Rahimi has completed her Master at the age of 31 in Biotechnology Engineering from Islamic Azad University, Science and Research Branch, Tehran-Iran. She is publishing a paper in an International Journal and has presented two papers in internal congresses. She has practical experience in modern establishment of tissue culture techniques. She has participated in more than 20 workshops about new techniques of chromatography, extraction of essential oils and plant extracts, molecular methods for the identification of medicinal plants. She works as a researcher at the Shahid Beheshti University Research Center that investigates biotechnology techniques on medicinal plants.

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