

## Micropropagation of *Echinosophora koreensis* Nakai, a Korean Endemic Species in Danger, Using Axillary Buds

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To establish *in vitro* axillary bud culture conditions of *Echinosophora koreensis* Nakai, one of Korean endemic endangered species famous for beautiful flowers, we tested the influence of plant growth regulators (PGRs) in shooting and rooting stage from *in vitro* plants. In shoot multiplication, addition of 6-benzylaminopurine (BA) to the media induced 2.5 to 3 shoots per bud during 4 weeks of culture. And media including 0.5 mg L<sup>-1</sup> thidiazuron (TDZ) produced 3 to 4 shoots per bud. However, zeatin and isopentenyl adenine (2-ip) were not successful to increase shoot number, and the combination treatments of BA with other PGRs were also not effective. Shoots were smaller than 2 cm in length, in most of the treatments. In rooting, naphthalene acetic acid (NAA) treatments in the range of 0.5 to 4.0 mg L<sup>-1</sup> appeared to increase rooting rate by 10% to 60% approximately when compared with the control but roots developed with callus clusters. Indole butyric acid (IBA) addition had little effect on rooting (below 10%), while some roots were longer than in NAA treatments and some shoots were longer on high IBA concentrations (4.0 to 8.0 mg L<sup>-1</sup>). It is suggested that micropropagation is a highly applicable and promising to multiplication and conservation of rare and endangered endemic species.

**Key words:** Endemic species, Conservation, *Echinosophora koreensis* Nakai, Micropropagation