

P 25 The multiple Propagation of Mericlones from Shoot Tip Culture of *Neofinetia Falcata*

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Objectives

The study was carried out in order to get some informations on factors influencing formation of protocorm like body (PLB), multishoots body (MSB) formation and subsequent propagation from PLB, and growth of mericlones of *Neofinetia falcata*.

Materials and Methods

1. Materials - shoot tip of *Neofinetia falcata*

2. Methods

- PLB induction: 3 g · L⁻¹ hyponex, 2 g · L⁻¹ peptone, 30 g · L⁻¹ sucrose, 0.5 g · L⁻¹ activated charcoal, 8 g · L⁻¹ agar, pH 5.2
plant growth regulator concentrations and combinations between 0~2.0 mg · L⁻¹ NAA and 0~1.0 mg · L⁻¹ BA
- MSB multiplication: 3 g · L⁻¹ hyponex, 2 g · L⁻¹ peptone, 30 g · L⁻¹ sucrose, 8 g · L⁻¹ agar, pH 5.2
plant growth regulator concentrations and combinations between 0.5~1.0 mg · L⁻¹ NAA and 1.0~10.0 mg · L⁻¹ BA or 0.5~1.0 mg · L⁻¹ NAA and 1.0~10.0 mg · L⁻¹ Kinetin, 200 ml · L⁻¹ apple juice
- Plantlet growth: 3 g · L⁻¹ hyponex, 2 g · L⁻¹ peptone, 30 g · L⁻¹ sucrose, 200 ml · L⁻¹ apple juice, 8 g · L⁻¹ agar, pH 5.2 and 1 g · L⁻¹ hyponex, 2 g · L⁻¹ peptone, 30 g · L⁻¹ sucrose,

200 ml · L⁻¹ apple juice, 8 g · L⁻¹ agar, pH 5.2 with exchangeable or tightly closed container

plant growth regulator concentrations and combinations between 0.5~1.0 mg · L⁻¹ NAA and 1.0 mg · L⁻¹ BA or 0.5~1.0 mg · L⁻¹ NAA and 1.0 mg · L⁻¹ Kinetin

Results and Discussion

PLB were successfully formed in H₃P₂ medium with or without 2.0 mg · L⁻¹ NAA and 1.0 mg · L⁻¹ BA, when cultured for under darkness earlier 4 weeks in culture, but subsequent growth of the PLB was promoted in NAA and BA enriched medium.

Proliferation of MSB was enhanced, when clumps of MSB which were subcultured in H₃P₂ medium with 2.0 mg · L⁻¹ NAA, 1.0 mg · L⁻¹ BA, were transplanted onto H₃P₂ medium containing 0.5 mg · L⁻¹ NAA, 1.0 mg · L⁻¹ kinetin and 200 ml · L⁻¹ apple juice at low light intensity (3,600 lux) of a fluorescent lamp. On the other hand, number of young shoots per MSB were more numerous in H₃P₂ with 0.5 mg · L⁻¹ NAA, 1. mg · L⁻¹ BA and 200 ml · L⁻¹ apple juice than in the other media.

Growth of young shoots was promoted, when young shoots obtaining in H₃P₂ medium containing 2.0 mg · L⁻¹ NAA, 1.0 mg · L⁻¹ BA were transplanted onto H₃P₂ medium containing 0.5 mg · L⁻¹ NAA, 1.0 mg · L⁻¹ kinetin and 200 ml · L⁻¹ apple juice.