

**PENGARUH PENAMBAHAN KARBON DIOKSIDA (CO₂) DAN AIR
KELAPA TERHADAP PERTUMBUHAN BIBIT ANGGREK Phalaenopsis
“Sogo Yukidian” PADA TAHAP AKLIMATISASI**

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INTISARI

Bibit anggrek hasil perbanyakan secara *in vitro* umumnya memiliki tingkat persentase hidup yang rendah pada tahap aklimatisasi karena perbedaan kondisi *in vitro* dan *ex vitro*. Penambahan CO₂ pada tumbuhan diketahui dapat meningkatkan pertumbuhan dan fiksasi CO₂. Kandungan senyawa organik kompleks pada air kelapa diketahui dapat menjadi sumber nutrisi dan zat pengatur tumbuh. Penelitian dilakukan untuk mengetahui pengaruh penambahan CO₂ dan air kelapa terhadap pertumbuhan bibit anggrek *Phalaenopsis* “Sogo Yukidian”. Bibit anggrek *Phalaenopsis* “Sogo Yukidian” berumur 1 tahun diberi perlakuan penambahan CO₂ (2242,92 ppm) pada siang hari, malam hari atau tanpa penambahan CO₂ (445,64 ppm). Air kelapa dengan konsentrasi 0, 50, 100, 150 mL/L diberikan setiap minggu selama 8 minggu. Hasil penelitian menunjukkan bahwa 100% bibit dapat tumbuh dengan baik. Penambahan CO₂ dan air kelapa tidak signifikan mempengaruhi pertumbuhan bibit anggrek *Phalaenopsis* ‘Sogo Yukidian’ pada tahap aklimatisasi.

Kata kunci: Penambahan CO₂, air kelapa, *Phalaenopsis* “Sogo Yukidian”, aklimatisasi.

**EFFECTS OF CARBON DIOXIDE (CO₂) ENRICHMENT AND
COCONUT WATER ON GROWTH OF ORCHID SEEDLINGS
Phalaenopsis ‘Sogo Yukidian’ IN ACCLIMATIZATION**

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ABSTRACT

Orchid Seedlings of *in vitro* propagation generally have a low percentage of survivorship in the acclimatization stage due to the difference condition between *in vitro* and *ex vitro*. CO₂ enrichment in plants is known able to increase growth and CO₂ fixation. The content of complex organic compounds in coconut water is known to be a source of nutrients and growth regulators. The aim of this experiment was to evaluate effect of CO₂ enrichment and application of coconut on growth of *Phalaenopsis* ‘Sogo Yukidian’ seedlings. One years old *P.* ‘Sogo Yukidian’ seedlings were treated with CO₂ (2242,92 ppm) during the day or night or without CO₂ enrichment (445,64 ppm). Coconut water with concentration of 0, 50, 100, 150 mL/L was applied once a week for 8 weeks. The results showed that 100% seedlings were grown well in all treatments. The addition of CO₂ and coconut water did not give significant effect on growth of *P.* ‘Sogo Yukidian’ at the acclimatization stage.

Keyword: CO₂ enrichment, coconut water, *Phalaenopsis* “Sogo Yukidian”, acclimatization.