

## ABSTRACT

**Tiara Aviantari Hastuti. 24020120140152. Effect of Coconut Water on NP Medium (*New Phalaenopsis*) on the Growth of *Dendrobium spectabile* (Blume) Miq Orchids. In Vitro. Laboratory of Plant Structure and Function Biology, Department of Biology, Faculty of Science and Mathematics, Diponegoro University, Semarang, under the guidance of Nintya Setiari and Yulita Nurchayati.**

Coconut water is an organic material that is often used in *in vitro* culture because it contains natural auxins and cytokinins that can stimulate cell division. Modification of culture media with the addition of coconut water can increase orchid growth. The media in NP (*New Phalaenopsis*) does not contain hormones, so hormones contained in coconut water are added. The purpose growth and determine the optimal concentration of coconut water on the growth of orchid *D. spectabile*. The method used was *in vitro* subculture of orchids by adding different concentrations of coconut water to NP medium for the growth of *D. spectabile* orchid planlets. This research was carried out with (RAL) Single-factor Completely Randomized Design in the form of coconut water concentration, namely (0%, 5%, 10%, 15%, & 20%), each with 5 replicates. Observation of orchid growth was carried out for 3 months, with parameters including: time of new shoot emergence, number of new shoots, time of new leaf emergence, number of new leaves, new leaf length, new leaf color, time of new root emergence, number of new roots, and new root length. Observation data were processed using one way ANOVA with SPSS program and continued with *Duncan* test. The results showed that the addition of coconut water affects the growth of *D. spectabile* orchid planlets in NP media for leaf parameters, but has no effect on shoot emergence time, number of shoots, root emergence time, number of roots, and root length. The addition of 20% coconut water in NP media is the optimal concentration for the parameters of leaf emergence time and leaf length of *D. spectabile* orchid planlets.

Keywords: Coconut water, *New Phalaenopsis*, *Dendrobium spectabile*.

Pembimbing I

Pembimbing II

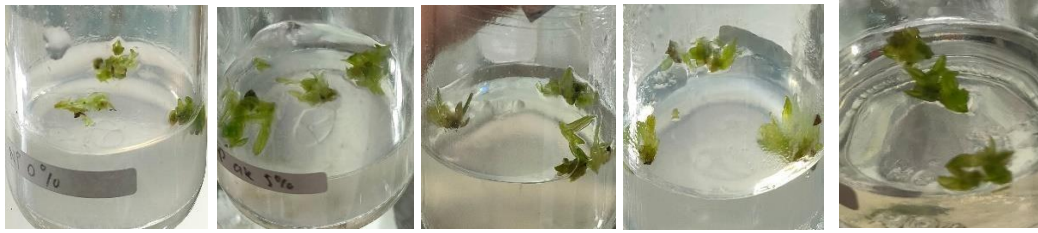
Dr. Nintya Setiari, S. Si., M. Si.

NIP.197404122003122001

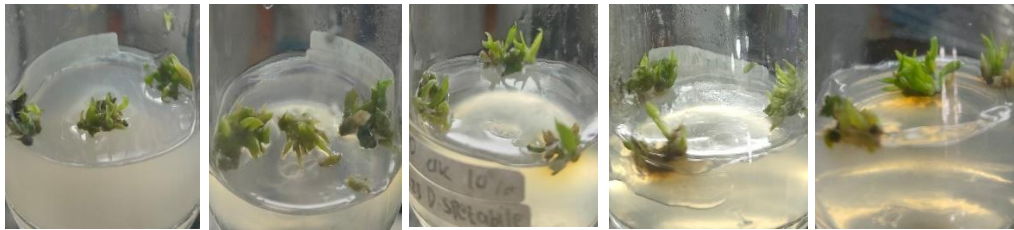
Dr. Yulita Nurchayati, S. Si., M. Si.

NIP. 197107111998022001

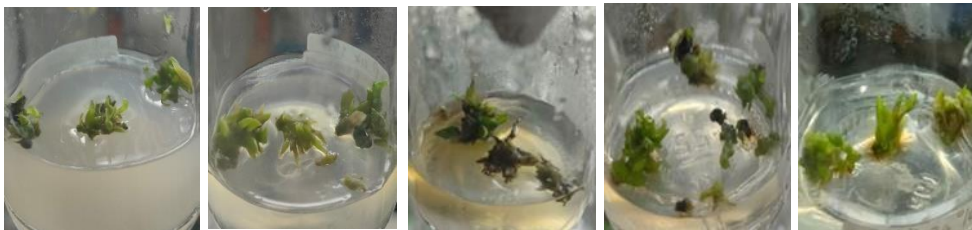
#### 1.4 Dokumentasi Awal Penanaman pada Perlakuan Kontrol (0%), 5%, 10%, 15%, dan 20%



#### 1.5 Dokumentasi 1 Bulan Pengamatan pada Perlakuan Kontrol (0%), 5%, 10%, 15%, dan 20%.



#### 1.6 Dokumentasi 2 Bulan Pengamatan pada Perlakuan Kontrol (0%), 5%, 10%, 15%, dan 20%.



## RIWAYAT HIDUP

- **Data Pribadi**

Nama Lengkap : Tiara Aviantari Hastuti

Nama Panggilan : Tiara

Tempat, Tanggal Lahir : Pemalang, 1 Mei 2002

NIM : 24020120140152

Angkatan : 2020

Fakultas / Jurusan : Fakultas Sains dan Matematika/ Biologi

Jenis Kelamin : Perempuan

Alamat Asal : Benda, Tangerang, Banten

Alamat Sekarang : Tembalang, Semarang, Jawa Tengah

No HP : 081398196625

Alamat E-mail : [tiaraaviantari@gmail.com](mailto:tiaraaviantari@gmail.com)

Agama : Islam



- **Pendidikan Formal**

Sekolah – Universitas	Tahun
Biologi/Fakultas Sains dan Matematika_ Universitas Diponegoro	2020-Sekarang
SMAS Daar el - Qolam 2	2017-2020
SMPS Daar el - Qolam 2	2014-2017
SDN Pegadungan 01	2008-2014
TK Ekadyasa	2006-2008

- **Organisasi yang Pernah Diikuti**

<b>Lembaga</b>	<b>Jabatan</b>	<b>Tahun</b>
BrNA	Anggota	2021
Badminton	Anggota	2020- sekarang
Niche Jurnalistik	Anggota Divisi Majalah dan bulletin	2020-2021
Niche Jurnalistik	Ketua Divisi Reporter	2022