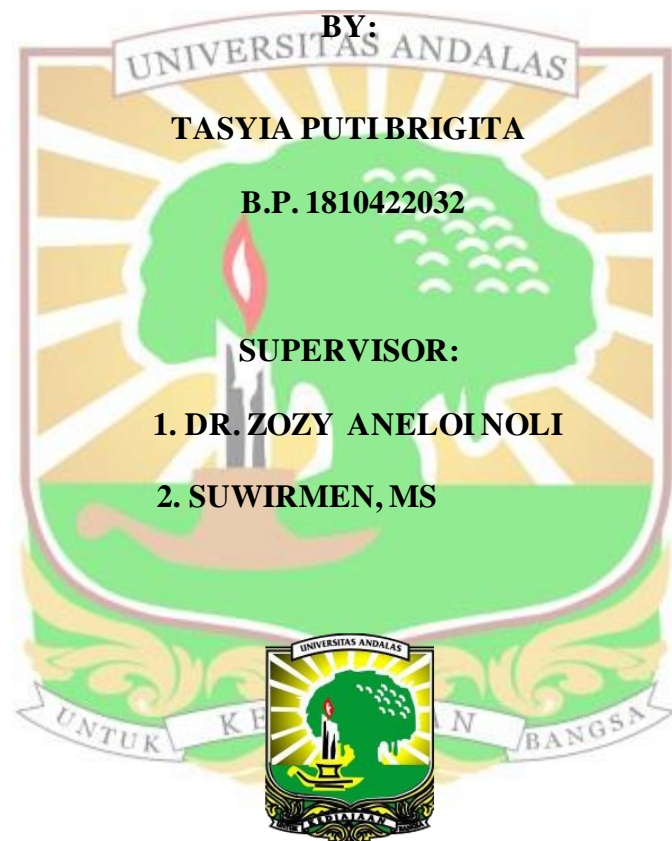


**SEED GERMINATION AND PROTOCORM DEVELOPMENT OF
Cymbidium dayanum Rchb.f. ON SEVERAL MODIFICATION OF BASAL
MEDIUM**

BIOLOGY UNDERGRADUATE THESIS



FACULTY OF MATHEMATICS AND NATURAL SCIENCE

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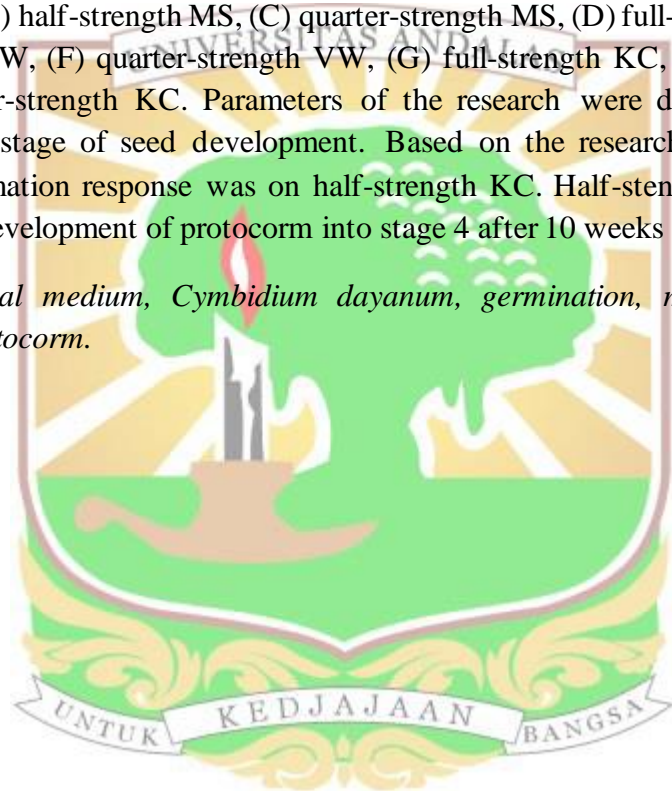
PADANG

2022

ABSTRACT

The research about seed germination and protocorm development of *Cymbidium dayanum* Rchb.f. on Several Modification of Basal Medium was conducted on January to March 2022 at Plant Physiology Laboratory, Biology Department, Faculty of Mathematics and Natural Science, Universitas Andalas, Padang. The research objectives were to evaluate the influence of different strengths of Murashige and Skoog, Vacin and Went, and Knudson C on protocorm formation and seed development of *Cymbidium dayanum*. The research used Completely Randomized Design (CRD) with 9 treatments and 12 replications. The treatments were (A) full-strength MS, (B) half-strength MS, (C) quarter-strength MS, (D) full-strength VW, (E) half-strength VW, (F) quarter-strength VW, (G) full-strength KC, (H) half-strength KC, (I) quarter-strength KC. Parameters of the research were day of protocorm formation and stage of seed development. Based on the research result, the best protocorm formation response was on half-strength KC. Half-strength VW medium influence the development of protocorm into stage 4 after 10 weeks of culture

Keywords: basal medium, Cymbidium dayanum, germination, medium strength, protocorm.



ABSTRAK

Penelitian tentang seed germination and protocorm development of *Cymbidium dayanum* Rchb.f. on several modification of basal medium dilakukan pada bulan Januari hingga Maret 2022 di Laboratorium Fisiologi Tumbuhan Jurusan Biologi Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Andalas, Padang. Tujuan penelitian adalah untuk mengevaluasi pengaruh perbedaan kepekatan medium Murashige dan Skoog, Vacin and Went, dan Knudson C terhadap pembentukan protokorm dan perkembangan benih *Cymbidium dayanum*. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 9 perlakuan dan 12 ulangan. Perlakuan yang digunakan adalah (A) MS penuh, (B) setengah MS, (C) seperempat MS, (D) VW penuh, (E) setengah VW, (F) seperempat VW, (G) KC penuh, (H) setengah KC, (I) seperempat KC. Parameter pada penelitian ini adalah hari terbentuknya protokorm dan tahap perkembangan dari biji. Berdasarkan penelitian, medium setengah KC setengah memberikan respon tercepat terhadap pembentukan protokorm yaitu pada hari ke-56. Medium setengah VW mempengaruhi perkembangan protokorm tahap 4 setelah 10 minggu kultur.

Kata kunci: Cymbidium dayanum, kepekatan medium, medium dasar, perkecambahan, protokorm.

