# ABSTRAK

**Salwa Maulida Rahmah. 2026. Pengaruh Konsentrasi Pupuk Daun Terhadap Keberhasilan Aklimatisasi Planlet Aglaonema Hasil Kultur Jaringan. Di bawah bimbingan Liberty Chaidir dan Ahmad Taofik**

Aglaonema merupakan salah satu tanaman hias bernilai ekonomi tinggi yang banyak diperbanyak melalui teknik kultur jaringan. Keberhasilan perbanyakan secara kultur jaringan sangat ditentukan oleh tahap aklimatisasi karena planlet harus beradaptasi dari kondisi *in vitro* menuju lingkungan *ex vitro*. Pada fase ini, sistem perakaran dan mekanisme fisiologis tanaman belum berkembang secara optimal sehingga diperlukan pemberian nutrisi yang dapat mendukung pertumbuhan awal. Penelitian ini bertujuan untuk mengetahui pengaruh perbedaan konsentrasi pupuk daun terhadap keberhasilan aklimatisasi planlet Aglaonema *tricolor* hasil kultur jaringan serta menentukan konsentrasi yang memberikan respons pertumbuhan terbaik. Penelitian menggunakan metode yang dianalisis secara deskriptif dengan tiga taraf Perlakuan yang diberikan terdiri atas tiga taraf konsentrasi, yaitu pupuk daun (P1), pupuk daun (P2) , dan pupuk daun P3). Masing-masing perlakuan diulang sebanyak sembilan kali sehingga diperoleh 27 unit percobaan. Parameter yang diamati meliputi persentase hidup, pertambahan tinggi tanaman, pertambahan jumlah daun, jumlah klorofil, perubahan warna daun, serta pengamatan kondisi lingkungan berupa suhu, kelembapan, dan intensitas cahaya. Hasil penelitian menunjukkan bahwa seluruh perlakuan mampu mendukung proses aklimatisasi planlet dengan tingkat keberhasilan yang baik. Berdasarkan nilai rata-rata hasil pengamatan, pemberian pupuk daun P1 memberikan respons pertumbuhan terbaik yang ditunjukkan oleh persentase hidup tertinggi serta rata-rata pertambahan tinggi tanaman dan jumlah daun yang lebih baik dibandingkan perlakuan lainnya.



Kata Kunci: Aklimatisasi, Aglaonema, Pupuk daun.

## ABSTRACT

**Salwa Maulida Rahmah. 2026. The Effect of Foliar Fertilizer Concentration on the Acclimatization Success of Tissue Culture-Derived Aglaonema Plantlets. Supervised by Liberty Chaidir and Ahmad Taofik**.

*Aglaonema* is a high-value ornamental plant that is widely propagated through tissue culture techniques. The success of tissue culture propagation is largely determined by the acclimatization stage, during which plantlets must adapt from in vitro to ex vitro conditions. At this stage, the root system and physiological functions of the plantlets are not yet fully developed; therefore, an adequate nutrient supply is essential to support their initial growth. This study aimed to evaluate the effect of different concentrations of foliar fertilizer on the acclimatization success of tissue culture-derived Aglaonema plantlets and to determine the concentration that provides the best growth response. The study employed a descriptive analytical method with three treatment levels consisting of foliar fertilizer (P1), (P2), and (P3). Each treatment was replicated nine times, resulting in a total of 27 experimental units. The observed parameters included survival percentage, plant height increment, increase in leaf number, chlorophyll content, leaf color changes, and environmental conditions, including temperature, relative humidity, and light intensity. The results showed that all treatments were able to support the acclimatization process with a satisfactory level of success. Based on the mean values of the observed parameters, the application of foliar fertilizer at a concentration of P1 produced the best growth response, as indicated by the highest survival percentage and greater increases in plant height and leaf number compared with the other treatments.



Keywords: Acclimatization, Aglaonema, Foliar fertilizer.