

ABSTRAK

Syifa Tsurayya Annur. 2025. Respons Pertumbuhan *Protocorm Like Bodies* (PLB) Tanaman Anggrek (*Dendrobium* sp.) Varietas *Enopi Pink Lady* dan *Dian Agrihorti* Terhadap Perlakuan Kombinasi *Benzyl Amino Purine* dan *Naphthalene Acetic Acid*. Dibawah bimbingan Liberty Chaidir dan Ahmad Taofik.

Anggrek merupakan tanaman hias bernilai ekonomi tinggi. Perbanyakan anggrek secara *in vitro* melalui *Protocorm Like Bodies* (PLB) mampu menghasilkan produksi bibit dalam jumlah besar, seragam, dan lebih cepat dibandingkan metode konvensional. Penelitian ini bertujuan untuk menganalisis respons pertumbuhan *Protocorm Like Bodies* (PLB) anggrek *Dendrobium* varietas *Enopi Pink Lady* dan *Dian Agrihorti* terhadap berbagai kombinasi *Benzyl Amino Purine* (BAP) dan *Naphthalene Acetic Acid* (NAA), serta mengidentifikasi kombinasi yang menunjukkan respons pertumbuhan terbaik. Penelitian menggunakan Rancangan Acak Lengkap (RAL) dengan empat perlakuan, yaitu $\frac{1}{2}$ MS (kontrol), $\frac{1}{2}$ MS + BAP 1 ppm + NAA 1 ppm, $\frac{1}{2}$ MS + BAP 3 ppm + NAA 1 ppm, dan $\frac{1}{2}$ MS + BAP 5 ppm + NAA 1 ppm, masing-masing diulang sebanyak lima kali. Parameter yang diamati meliputi waktu muncul tunas, diameter eksplan, jumlah tunas, jumlah daun, persentase eksplan bertunas, dan persentase eksplan *browning*. Data dianalisis secara deskriptif menggunakan nilai rata-rata dan persentase. Hasil penelitian menunjukkan bahwa kedua varietas memberikan respons pertumbuhan yang berbeda terhadap perlakuan yang diberikan. Kombinasi $\frac{1}{2}$ MS + BAP 3 ppm + NAA 1 ppm menunjukkan respons pertumbuhan terbaik, ditandai dengan waktu muncul tunas tercepat, yaitu 17 hari pada *Enopi Pink Lady*, serta menghasilkan jumlah tunas tertinggi 7,6 tunas per eksplan. Dengan demikian, kombinasi BAP 3 ppm dan NAA 1 ppm menunjukkan respons yang lebih baik dibandingkan perlakuan lainnya dalam mendukung pertumbuhan PLB *Dendrobium* secara *in vitro*.

Kata Kunci: BAP, *Dendrobium*, Kultur *in vitro*, NAA, *Protocorm Like Bodies*.

ABSTRACT

Syifa Tsurayya Annur. 2025. Growth Response of Protocorm Like Bodies (PLB) of Orchid (*Dendrobium sp.*) Varieties Enopi Pink Lady and Dian Agrihorti to the Combination Treatment of Benzylaminopurine and Naphthalene Acetic Acid. Supervised by Liberty Chaidir and Ahmad Taofik.

Orchids are Protocorm-Like Bodies ornamental plants with high economic value. *In vitro* propagation through (PLBs) can produce large numbers of uniform seedlings in a shorter time compared to conventional methods. This study aimed to analyze the growth response of PLBs of *dendrobium* orchids, varieties Enopi Pink Lady and Dian Agrihorti, to various combinations of Benzyl Amino Purine (BAP) and Naphthalene Acetic Acid (NAA), and to identify the combination that resulted in the best growth response. The study employed a Completely Randomized Design (CRD) with four treatments: $\frac{1}{2}$ MS (control), $\frac{1}{2}$ MS + BAP 1 ppm + NAA 1 ppm, $\frac{1}{2}$ MS + BAP 3 ppm + NAA 1 ppm, and $\frac{1}{2}$ MS + BAP 5 ppm + NAA 1 ppm, each replicated five times. The observed parameters included shoot emergence time, explant diameter, number of shoots, number of leaves, percentage of shoot-forming explants, and percentage of browning explants. Data were analyzed descriptively using mean values and percentages. The results showed that both varieties exhibited different growth responses to the applied treatments. The combination of $\frac{1}{2}$ MS + BAP 3 ppm + NAA 1 ppm produced the best growth response, characterized by the fastest shoot emergence time of 17 days in Enopi Pink Lady and the highest number of shoots, reaching 7.6 shoots per explant. Therefore, the combination of BAP 3 ppm and NAA 1 ppm showed a better response than the other treatments in supporting the *in vitro* growth of *dendrobium* PLBs.

Kata Kunci: BAP, *Dendrobium*, *In vitro* culture, NAA, *Protocorm-Like Bodies*.