

Pengaruh Konsentrasi Ekstrak Bonggol Pisang Dan Lama Perendaman Terhadap Pertumbuhan Sambung Pucuk Kakao (*Theobroma cacao* L.)
(The Effect of Banana Corm Extract and Soaking Duration on the Growth of Top-Grafted Cocoa (*Theobroma cacao* L.))

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ABSTRAK

Produktivitas kakao yang rendah (426 kg/ha/tahun, 2022) mendorong penggunaan sambung pucuk untuk memperbanyak klon unggul, namun kendala sambung pucuk umumnya adalah pertumbuhan tunas yang lambat. Bonggol pisang dari tanaman penaung dimanfaatkan sebagai ZPT alami karena mengandung auksin, sitokinin, dan giberelin yang dapat mempercepat pertautan sambungan dan inisiasi tunas. Penelitian bertujuan menentukan konsentrasi ekstrak bonggol pisang dan lama perendaman entres yang efektif. Penelitian dilaksanakan Mei-September 2025 di Kebun Percobaan PUSLITKOKA, Jember, menggunakan RAK faktorial: konsentrasi ekstrak (B0=0%, B1=50%, B2=75%, B3=100%) dan lama perendaman (W1=60 menit, W2=90 menit, W3=120 menit) dengan 6 ulangan (72 unit). Data dianalisis dengan ANOVA dan DMRT taraf 5–1%. Perlakuan 100% ekstrak bonggol pisang (B3) memberikan hasil terbaik dan berbeda nyata pada panjang tunas (15,92 mm), tinggi tanaman (20,64 mm), panjang cabang (52,88 mm), lebar daun (13,85 mm), jumlah daun (11,56 helai), diameter batang (8,23 mm), dan persentase hidup (77,78%). Perlakuan lama perendaman 120 menit (W3) menghasilkan panjang tunas tertinggi (12,83 mm), tinggi tanaman (14,88 mm), jumlah daun (10,67 helai), dan diameter batang (6,17 mm), sedangkan 60 menit (W1) menghasilkan lebar daun terbesar (13,01 mm). Kombinasi B3W3 merupakan perlakuan terbaik dengan panjang tunas (17,32 mm), lebar daun (16,32 mm), dan diameter batang (9,82 mm).

Kata Kunci : Sambung pucuk kakao, Ekstrak bonggol pisang, Lama perendaman entres.

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ABSTRACT

Low cocoa productivity (426 kg/ha/year, 2022) has encouraged the use of cleft grafting for the propagation of superior clones; however, the primary constraint of cleft grafting is generally slow shoot growth. Banana corms from shade plants are utilized as a natural plant growth regulator (PGR) because they contain auxins, cytokinins, and gibberellins, which can accelerate graft union and shoot initiation. This study aimed to determine the effective concentration of banana corm extract and scion immersion duration. The research was conducted from May to September 2025 at the PUSLITKOKA Experimental Station, Jember, using a factorial Randomized Block Design (RBD): extract concentration (B0=0%, B1=50%, B2=75%, B3=100%) and immersion duration (W1=60 minutes, W2=90 minutes, W3=120 minutes) with 6 replications (72 units). Data were analyzed using ANOVA and DMRT at the 5–1% levels. The results showed that the 100% banana corm extract treatment (B3) provided the best results and was significantly different for shoot length (15.92 mm), plant height (20.64 mm), branch length (52.88 mm), leaf width (13.85 mm), number of leaves (11.56 leaves), stem diameter (8.23 mm), and survival percentage (77.78%). The 120-minute immersion treatment (W3) produced the highest values for shoot length (12.83 mm), plant height (14.88 mm), number of leaves (10.67 leaves), and stem diameter (6.17 mm), while the 60-minute immersion (W1) produced the largest leaf width (13.01 mm). The B3W3 combination was the best treatment, yielding a shoot length of 17.32 mm, leaf width of 16.32 mm, and stem diameter of 9.82 mm.

Keywords: Cocoa top grafting, banana corm extract, scion soaking duration.