

**Perlakuan Pemangkasan Cabang Lateral dan Aplikasi *Photosynthetic Bacteria*
(PSB) terhadap Pertumbuhan dan Hasil Tanaman
Kacang Panjang (*Vigna sinensis* L.)**

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ABSTRAK

Penelitian bertujuan mengkaji interaksi antara waktu pemangkasan cabang lateral dan aplikasi PSB terhadap pertumbuhan dan hasil tanaman kacang panjang. Penelitian menggunakan percobaan lapangan Rancangan Acak Lengkap Faktorial (RAL) dengan 2 faktor dan 1 kontrol. Faktor pertama waktu pemangkasan cabang lateral pada 21, 28, dan 35 HST. Faktor kedua aplikasi PSB setiap 5, 10, dan 15 hari. Kontrol menggunakan pupuk NPK 7,5 g/tanaman. Data dianalisis menggunakan ANOVA. Kombinasi perlakuan dengan kontrol menggunakan uji *Contrast Orthogonal*, dilanjutkan uji DMRT taraf 5% untuk melihat ada tidaknya beda nyata antar perlakuan. Hasil penelitian menunjukkan adanya interaksi antara pemangkasan cabang lateral dan aplikasi PSB pada parameter tinggi tanaman 23 HST dan diameter batang 37 HST. Kombinasi perlakuan pemangkasan cabang lateral dan aplikasi PSB nyata lebih baik dibandingkan kontrol terhadap tinggi tanaman 16 HST lebih tinggi, umur muncul bunga lebih cepat, bobot polong lebih besar, jumlah polong lebih banyak, panjang polong lebih panjang, bobot segar dan kering brangkasan lebih besar. Pemangkasan cabang lateral 21 dan 28 HST memberikan pengaruh yang sama baik terhadap jumlah polong, panjang polong, dan mempercepat umur muncul bunga. Aplikasi PSB 10 dan 15 hari sekali memberikan pengaruh sama baik terhadap tinggi tanaman umur 37 HST. Aplikasi PSB 5 hari sekali mempercepat umur muncul bunga.

Kata Kunci: Kacang Panjang, Cabang Lateral, PSB.

Effect of Lateral Branch Pruning and Application of Photosynthetic Bacteria (PSB) on the Growth and Yield of Long Bean (*Vigna sinensis* L.)

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ABSTRACT

The study aimed to examine the interaction between the timing of lateral branch pruning and *Photosynthetic Bacteria* application on the growth and yield of long bean plants. The study used a completely randomized factorial design (CRD) field experiment with 2 factors and 1 control. The first factor was the timing of lateral branch pruning at 21, 28, and 35 days after planting. The second factor was *Photosynthetic Bacteria* application every 5, 10, and 15 days. The control used 7.5 g of NPK fertilizer/plant. Data were analyzed using ANOVA. The combination of treatment with control used the Orthogonal Contrast test, followed by the DMRT test at 5% level to see whether there was a significant difference between treatments. The results showed an interaction between lateral branch pruning and PSB application on the parameters of plant height at 23 DAP and stem diameter at 37 DAP. The combination of lateral branch pruning and PSB application was significantly better than the control parameter of higher plant height at 16 days after planting, earlier flower emergence age, larger pod weight, more pod number, longer pod length, and larger fresh and dry weight of the stover. Pruning lateral branches at 21 and 28 days after planting had the same effect on pod number, pod length, and accelerated flowering. Applying PSB every 10 and 15 days had the same effect on plant height at 37 days after planting. Applying PSB every 5 days accelerated flowering.

Keywords: Long Bean, Lateral Branch, PSB