

**PENGARUH PAKLOBUTRAZOL TERHADAP PERTUMBUHAN DAN  
PERKEMBANGAN TANAMAN KECIPIR (*Psophocarpus tetragonolobus*  
(L.) DC.)**

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**INTISARI**

Kecipir (*Psophocarpus tetragonolobus* (L.) DC.) merupakan salah satu tanaman legum tropis yang tersebar di Indonesia. Kecipir merupakan tanaman dengan pertumbuhan batang merambat sehingga untuk budidaya membutuhkan ajir atau para-para. Batang tanaman yang merambat dapat diupayakan untuk lebih pendek sehingga memudahkan perawatan tanaman dan panen. Salah satu cara yang bisa digunakan adalah pemberian paklobutrazol yang merupakan penghambat sintesis giberelin. Dengan berkurangnya giberelin, tanaman menjadi lebih pendek. Penelitian ini bertujuan untuk mengevaluasi pengaruh paklobutrazol terhadap pertumbuhan, perkembangan, kandungan fitokimia, serta hasil panen pada tanaman kecipir (*Psophocarpus tetragonolobus* (L.) DC.). Parameter yang diuji berupa tinggi tanaman, jumlah daun, luas daun, panjang polong, kerapatan stomata, inisiasi pembungaan, kadar klorofil, kadar vitamin C, kadar protein, total polong per tanaman, dan bobot buah segar per buah. Rancangan Acak Lengkap dengan faktor tunggal digunakan pada penelitian ini. Faktor yang diteliti adalah konsentrasi paklobutrazol dengan dosis 0 ppm (kontrol), 25 ppm, 50 ppm, 75 ppm atau 100 ppm. Setiap perlakuan disiapkan tiga ulangan. Data dianalisis dengan *One Way ANOVA* dilanjutkan dengan uji DMRT (*Duncan Multiple Range Test*) pada signifikansi 5% dan taraf kepercayaan 95%. Hasil penelitian menunjukkan bahwa paklobutrazol berpengaruh signifikan terhadap penurunan tinggi batang sebesar 96,6%, jumlah daun sebesar 29,7%, luas daun sebesar 41,1%, jumlah polong per tanaman sebesar 85,1%, panjang polong sebesar 30,1%, bobot buah segar per buah sebesar 56,9%, kadar vitamin C sebesar 40,4% dan kadar protein pada polong muda sebesar 25,9% dibandingkan dengan kontrol, namun meningkatkan kadar klorofil daun sebesar 57,4% dan kerapatan stomata permukaan daun abaksial (bawah) sebesar 48,4%. Paklobutrazol berpengaruh signifikan dalam mempercepat waktu berbunga pada konsentrasi 50 ppm, sekitar 4,67 hari lebih cepat dibandingkan dengan kontrol (0 ppm).

Kata kunci : paklobutrazol, perkembangan, pertumbuhan, *Psophocarpus tetragonolobus* (L.) DC.

**GROWTH AND DEVELOPMENT OF WINGED BEAN  
(*Psophocarpus tetragonolobus* (L.) DC.) TREATED WITH  
PACLOBUTRAZOL**

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**ABSTRACT**

Winged bean (*Psophocarpus tetragonolobus* (L.) DC.) is one of the tropical legume plants which is widely distributed in Indonesia. Winged bean is a climbing herbaceous plant. Consequently, stakes or “para-para” are required for cultivation. The growth of climbing stems can be manipulated for practical plant care and harvest through application of paclobutrazol. Paclobutrazol inhibits gibberellin synthesis and it causes plant become semi-dwarf or dwarf. This research was aimed to evaluate the effects of paclobutrazol on growth, development, phytochemical contents, and pod yield of winged bean (*Psophocarpus tetragonolobus* (L.) DC.). The parameters observed were plant height, number of leaves, leaf area, length of pods, stomatal density, flowering time, total of pod number per plant, chlorophyll content, vitamin C content, protein content and fresh weight of pods. This research use Completely Randomized Design with one factor namely paclobutrazol, which was applied with different concentrations 0 ppm (control), 25 ppm, 50 ppm, 75 ppm or 100 ppm. For each treatment three replicates were prepared. Data were analyzed by ANOVA at the 5% signification, followed by DMRT at the 95% confidence level. The results showed that paclobutrazol had several significant effects specifically on decreasing plant height about approximately 96,6%, number of leaves approximately 29,7%, leaf area approximately 41,1%, total pod number per plant approximately 85,1%, average length of pods approximately 30,1%, average fresh weight per pods approximately 56,9%, vitamin C content approximately 40,4% and protein content in immature pods approximately 25,9% compared to control (0 ppm), but it increasing leaf chlorophyll content approximately 57,4% and stomatal density in the abaxial (lower) leaf surface approximately 48,4% compared to control (0 ppm). Paclobutrazol had the most significant effect in shortening the flowering time approximately 4,67 day faster than control (0 ppm), if it applied at a concentration of 50 ppm.

**Key words :** development, growth, paclobutrazol, *Psophocarpus tetragonolobus* (L.) DC.