APLIKASI BERBAGAI KONSENTRASI GIBBERELIN (GA3) DAN WAKTU PEMANGKASAN PUCUK TERHADAP PERTUMBUHAN DAN HASIL TANAMAN MENTIMUN (*Cucumis sativus* L.)

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ABSTRAK

Mentimun merupakan komoditas pertanian yang diminati untuk kebutuhan konsumsi maupun industri, namun produksinya cenderung menurun. Upaya peningkatan produktivitas dilakukan dengan penggunaan ZPT giberelin dan waktu pemangkasan pucuk. Penelitian bertujuan untuk menentukan konsentrasi giberelin dan waktu pemangkasan pucuk yang tepat terhadap pertumbuhan dan hasil tanaman mentimun. Penelitian merupakan percobaan lapangan dengan Rancangan Acak Kelompok Lengkap (RAKL) Faktorial (3x3) + 1 kontrol. Faktor pertama konsentrasi giberelin terdiri dari 3 aras yaitu 150, 200, dan 250 ppm. Faktor kedua waktu pemangkasan pucuk saat 15, 20, dan 25 HST. Data dianalisis dengan ANOVA taraf 5% dan dilanjut dengan uji DMRT taraf 5%. Hasil penelitian menunjukkan interaksi nyata antara konsentrasi giberelin dan waktu pemangkasan pucuk terhadap umur muncul bunga jantan, diameter buah, dan bobot buah per tanaman. Konsentrasi giberelin 150 ppm memberikan hasil paling baik terhadap luas daun, indeks luas daun, panjang buah, bobot buah per petak dan per hektar, serta bobot kering. Waktu pemangkasan pucuk 20 HST memberikan hasil paling baik terhadap panjang buah, bobot buah per petak dan per hektar, serta bobot kering. Kombinasi perlakuan pada parameter umur muncul bunga jantan, luas daun, panjang buah, diameter buah dan bobot segar buah per tanaman lebih baik daripada kontrol.

Kata Kunci: Mentimun, Giberelin, Waktu Pemangkasan Pucuk

THE EFFECT OF VARIOUS CONCENTRATIONS OF GIBBERELLIN (GA3) AND PRUNING TIMES ON THE GROWTH AND YIELD OF CUCUMBER PLANTS (*Cucumis sativus* L.)

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ABSTRACT

Cucumber is an agricultural commodity in demand for both consumption and industrial needs. However, its production tends to decline. Efforts to increase productivity are carried out by using gibberellin PGR and the timing of shoot pruning. The study aims to determine the appropriate concentration of gibberellin and the timing of shoot pruning on the growth and yield of cucumber plants. The study used a field experiment with a Randomized Complete Block Design (RAKL) Factorial (3x3) + 1 control. The first factor was gibberellin concentration consisting of 3 levels: 150, 200, and 250 ppm. The second factor was the timing of shoot pruning at 15, 20, and 25 days after planting. Data were analyzed using ANOVA at a 5% level and continued with the DMRT test at a 5% level. The results showed a significant interaction between gibberellin concentration and the timing of shoot pruning on the age of male flower emergence, fruit diameter, and fruit weight per plant. The gibberellin concentration of 150 ppm gave the best results on leaf area, leaf area index, fruit length, fruit weight per plot and per hectare, and dry weight. Pruning shoots at 20 days after planting (DAP) yielded the best results for fruit length, fruit weight per plot and per hectare, and dry weight. The combination of treatments was superior to the control for the age of male flower emergence, leaf area, fruit length, fruit diameter, and fresh fruit weight per plant.

Keywords: Cucumber, Gibberellin, Shoot Pruning Time