

**PENGARUH JUMLAH RUAS BATANG DAN KONSENTRASI ZAT
PENGATUR TUMBUH AUKSIN TERHADAP PERTUMBUHAN STEK
BATANG TANAMAN KUMIS KUCING (*Orthosiphon aristatus*)**

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ABSTRAK

Penelitian bertujuan untuk mengetahui pengaruh jumlah ruas batang dan konsentrasi zat pengatur tumbuh auksin terhadap pertumbuhan stek batang tanaman kumis kucing (*Orthosiphon aristatus*). Penelitian dilaksanakan pada bulan Maret hingga April 2025 di Klitren, Gondokusuman, Kota Yogyakarta. Percobaan disusun menggunakan Rancangan Acak Lengkap (RAL) faktorial dua faktor, yaitu jumlah ruas batang stek (2, 3, dan 4 ruas) dan konsentrasi auksin IBA (0 ppm, 250 ppm, dan 500 ppm). Data dianalisis menggunakan Analisis Ragam (ANOVA) taraf 5% dan dilanjutkan dengan uji DMRT taraf 5%. Hasil penelitian menunjukkan adanya interaksi antara jumlah ruas batang dan konsentrasi auksin pada parameter bobot segar dan bobot kering tanaman. Kombinasi perlakuan 3 ruas dan 4 ruas dengan auksin 500 ppm menghasilkan bobot segar tertinggi dan tidak berbeda nyata. Pada bobot kering tanaman, kombinasi perlakuan 3 ruas dan 4 ruas dengan auksin 250 ppm dan 500 ppm tidak berbeda nyata dan menghasilkan bobot kering tertinggi. Perlakuan jumlah ruas batang 4 ruas dan konsentrasi auksin 500 ppm memberikan hasil terbaik atau tidak berbeda nyata dengan perlakuan terbaik pada sebagian besar parameter pertumbuhan stek batang tanaman kumis kucing.

Kata Kunci: *Stek batang, auksin, ruas batang, bahan tanam stek*

**THE EFFECT OF THE NUMBER OF STEM INTERNODES AND THE
CONCENTRATION OF THE GROWTH REGULATOR (AUXIN) ON THE
GROWTH OF STEM CUTTINGS OF CAT'S WHISPER (*Orthosiphon
aristatus*)**

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ABSTRACT

*The study aimed to determine the effect of the number of stem segments and the concentration of auxin growth regulators on the growth of stem cuttings of cat's whiskers (*Orthosiphon aristatus*). The study was conducted from March to April 2025 in Klitren, Gondokusuman, Yogyakarta City. The experiment was arranged using a completely randomized design (CRD) factorial with two factors, namely the number of stem cutting segments (2, 3, and 4 segments) and the concentration of IBA auxin (0 ppm, 250 ppm, and 500 ppm). Data were analyzed using Analysis of Variance (ANOVA) at a 5% level and continued with the DMRT test at a 5% level. The results showed an interaction between the number of stem segments and auxin concentration on the parameters of fresh weight and dry weight of plants. The combination of 3 and 4 segments with 500 ppm auxin produced the highest fresh weight and was not significantly different. In terms of plant dry weight, the combination of 3 and 4 internodes treatments with 250 ppm and 500 ppm auxin did not differ significantly and produced the highest dry weight. The treatment with 4 internodes and 500 ppm auxin concentration gave the best results or was not significantly different from the best treatment in most growth parameters of cat's whiskers stem cuttings.*

Keywords : *Stem cuttings, auxin, stem cuttings, cutting planting material*