

PENGARUH NAUNGAN TERHADAP PERTUMBUHAN, KERAPATAN
TRIKOMA DAN KANDUNGAN FLAVONOID TOTAL DAUN TANAMAN
KUMIS KUCING (*Orthosiphon stamineus* Benth.)

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INTISARI

Kumis kucing (*Orthosiphon stamineus* Benth.) merupakan salah satu tanaman obat yang dibudidayakan di Indonesia. Intensitas cahaya matahari berpengaruh terhadap pertumbuhan tanaman ini. Salah satu cara untuk mengatur intensitas cahaya matahari agar sesuai dengan kebutuhan tanaman dilakukan dengan pemberian naungan. Penelitian ini bertujuan untuk menguji pengaruh naungan terhadap pertumbuhan tanaman, kerapatan trikoma dan kandungan flavonoid total daun kumis kucing (*O. stamineus*). Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) dengan faktor tunggal yaitu naungan, tiga ulangan dan enam kali panen. Penelitian dilakukan dengan empat taraf perlakuan yaitu tanpa naungan (kontrol), naungan 40%, 60%, dan 80%. Pertumbuhan tanaman yang diamati yaitu tinggi tanaman, jumlah daun, berat segar total dan berat kering total. Pengamatan trikoma daun menggunakan metode irisan paradermal. Pengujian kandungan flavonoid total daun menggunakan metode alumunium klorida kolorimetri. Data dianalisis menggunakan Analisis Variansi (ANOVA) dilanjutkan *Duncan Multiple Range Test* (DMRT) taraf signifikansi 95% jika terdapat pengaruh nyata. Hasil penelitian menunjukkan bahwa pemberian naungan 40%, 60% dan 80% pada tanaman akan menurunkan pertumbuhan meliputi tinggi tanaman, jumlah daun, berat segar total, berat kering total, kerapatan trikoma dan kandungan flavonoid total daun kumis kucing (*O. stamineus*). Pertumbuhan tanaman kumis kucing (*O. stamineus*) yang tertinggi dihasilkan oleh perlakuan tanpa naungan.

Kata kunci : naungan, kumis kucing (*Orthosiphon stamineus* Benth.), pertumbuhan, trikoma, flavonoid

EFFECT OF SHADE ON GROWTH, TRICHOME DENSITY AND TOTAL
FLAVONOID CONTENT IN CAT'S WHISKERS
(*Orthosiphon stamineus* Benth.)

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ABSTRACT

Cat's whiskers (*Orthosiphon stamineus* Benth.) is one of the medicinal plants cultivated in Indonesia. The sunlight intensity affects the growth of this plant. The technique to control the light intensity which suitable for the growth of the plants is using shade. This study aimed to examine the effect of light intensity on growth of the plant, trichome density and total flavonoid content in cat's whiskers (*O. stamineus*). This study used a Randomized Block Design (RBD) with single factor is shade, three replications and six times to harvest. There were four treatments on this study: no-shade (control), 40% shade, 60% shade and 80% shade. Growth parameters observed were plant height, number of leaves, total of fresh weight and total of dry weight. To analyze trichome density used paradermal slices method. Total flavonoid content was analyzed using aluminum chloride colorimetry method. Data were analyzed using ANOVA and Duncan's Multiple Range Test (DMRT) 95% significance level if significant. The results showed the presence of shade with 40%, 60% and 80% intensity has an effect decreased growth of plant included plant height, number of leaves, total of fresh weight, total of dry weight, trichome density and total flavonoid content in cat's whiskers (*O. stamineus*). The highest growth of cat's whiskers (*O. stamineus*) was provided by no-shade treatment.

Keywords : shade, cat's whiskers (*Orthosiphon stamineus* Benth.), growth, trichome, flavonoid