

**PERBANDINGAN BERBAGAI JENIS LAMPU DAN KONSENTRASI AB
MIX PADA PERTUMBUHAN DAN HASIL SELADA (*Lactuca sativa* L.)
DENGAN METODE HIDROPONIK RAKIT APUNG**

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ABSTRAK

Selada (*Lactuca sativa* L.) merupakan sayuran bernilai ekonomis tinggi, namun produksinya di Indonesia masih rendah akibat keterbatasan lahan. Hidroponik indoor menjadi solusi alternatif yang keberhasilannya bergantung pada faktor nutrisi dan pencahayaan yang optimal. Penelitian ini mengkaji pengaruh jenis lampu (LED, neon, dan *growlight*) dan konsentrasi AB Mix (600, 700, dan 800 ppm) terhadap pertumbuhan selada sistem rakit apung menggunakan Rancangan Petak Terbagi (*Split Plot Design*), dianalisis dengan ANOVA 5% dan uji lanjut DMRT 5%. Parameter yang diamati meliputi panjang tanaman, jumlah daun, bobot segar pertanaman, bobot segar tajuk, bobot segar konsumsi, warna daun, dan bobot kering tajuk. Hasil menunjukkan bahwa lampu neon (L2) memberikan hasil terbaik pada parameter panjang tanaman 3 dan 4 MST, jumlah daun 4 MST, bobot segar pertanaman, bobot segar tajuk, bobot segar konsumsi dan bobot kering tajuk, sedangkan perbedaan konsentrasi AB Mix tidak memperoleh hasil baik yang konsisten pada pertumbuhan dan hasil tanaman selada.

Kata Kunci: hidroponik rakit apung, selada, lampu LED, lampu neon, *growlight*, AB Mix.

**COMPARISON OF VARIOUS TYPES OF LIGHTS AND AB MIX
CONCENTRATIONS ON THE GROWTH AND YIELD OF LETTUCE
(*Lactuca sativa* L.) USING THE FLOATING RAFT HYDROPONIC
METHOD**

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ABSTRACT

Lettuce (*Lactuca sativa* L.) is a high-value vegetable crop; however, its production in Indonesia remains low due to limited agricultural land. Indoor hydroponics offers an alternative solution, the success of which depends on optimal nutritional and lighting conditions. This study investigated the effect of lamp type (LED, fluorescent, and growlight) and AB Mix concentration (600, 700, and 800 ppm) on the growth of lettuce cultivated using a floating raft hydroponic system. The experiment was arranged in a Split Plot Design and analyzed using ANOVA at the 5% significance level followed by DMRT post-hoc test. Observed parameters included plant length, leaf number, fresh weight per plant, shoot fresh weight, consumable fresh weight, leaf color, and shoot dry weight. The results showed that the fluorescent light type (L2) yielded the best results for plant height at 3 and 4 MST, number of leaves at 4 MST, fresh weight per plant, fresh weight of canopy, fresh weight of consumption, and dry weight of canopy, whereas differences in AB Mix concentration did not consistently produce favorable results on the growth and yield of lettuce.

Keyword: floating raft hydroponic, lettuce, LED lights, fluorescent lights, growlight, AB Mix.