

## RINGKASAN

Selada (*Lactuca sativa* L.) banyak dibudidayakan dan dikonsumsi oleh masyarakat Indonesia. Produksi sayur selada dapat ditingkatkan dengan menerapkan teknik budidaya hidroponik dan penambahan POC (pupuk organik cair). Pemanfaatan POC lebih ramah lingkungan dan dapat meminimalkan biaya produksi, dengan harapan dapat mengurangi ketergantungan pada nutrisi AB mix.

Penelitian ini menggunakan metode Rancangan Acak Kelompok Lengkap (RAKL) yang terdiri dari 2 faktor. Faktor pertama adalah pengurangan konsentrasi nutrisi AB mix yang terdiri dari 3 taraf yaitu pengurangan konsentrasi nutrisi AB mix 0%, 25%, dan 50%. Faktor kedua adalah penambahan jenis POC urine kelinci yang terdiri dari 4 taraf yaitu tanpa POC, POC + azolla, POC + kipahit, dan POC + trembesi. Penelitian ini terdiri dari 12 kombinasi perlakuan dengan 3 kali ulangan menghasilkan 36 unit percobaan. Variabel yang diamati yaitu tinggi tanaman, jumlah daun, luas daun, panjang akar terpanjang, volume akar, tingkat kehijauan daun, kandungan klorofil, kerapatan stomata, lebar bukaan stomata, bobot tajuk segar, bobot tajuk kering, bobot akar segar, bobot akar kering, bobot brangkasan segar, bobot brangkasan kering, dan indeks panen. Data yang diperoleh dianalisis menggunakan analisis ragam (ANOVA) uji F pada taraf 5%. Apabila signifikan, dilakukan uji lanjut DMRT (*Duncan Multiple Range Test*) pada taraf 5%.

Hasil penelitian menunjukkan bahwa pengurangan konsentrasi nutrisi AB mix 0% memberikan hasil terbaik pada variabel tinggi tanaman dan jumlah daun (14, 21, 28, dan 35 HST), luas daun, panjang akar terpanjang, kandungan klorofil, bobot tajuk segar, bobot tajuk kering, bobot akar segar, bobot brangkasan segar, dan bobot brangkasan kering. Pengurangan konsentrasi nutrisi AB mix 25% menunjukkan hasil yang sama dengan pengurangan konsentrasi nutrisi AB mix 0% pada variabel bobot akar kering dan indeks panen. Penyemprotan POC urine kelinci + tanaman azolla memberikan hasil terbaik pada variabel tinggi tanaman 35 HST, jumlah daun 14 HST, luas daun, kandungan klorofil, bobot tajuk segar, bobot tajuk kering, bobot brangkasan segar, dan bobot brangkasan kering. POC urine kelinci + tanaman azolla, POC urine kelinci + daun kipahit, dan POC urine kelinci + daun trembesi memberikan hasil yang sama pada variabel indeks panen. POC urine kelinci + tanaman azolla memberikan hasil yang sama dengan POC urine kelinci + daun trembesi pada variabel jumlah daun 28 dan 35 HST. Tidak terjadi interaksi antara pengurangan konsentrasi nutrisi AB mix dan penambahan jenis POC terhadap variabel tinggi tanaman, panjang akar terpanjang, volume akar, tingkat kehijauan daun, kandungan klorofil, kerapatan stomata, lebar bukaan stomata, bobot tajuk segar, bobot tajuk kering, bobot akar segar, bobot akar kering, bobot brangkasan segar, bobot brangkasan kering, dan indeks panen kecuali pada variabel jumlah daun 28 HST dan luas daun.

## SUMMARY

*Lettuce (Lactuca sativa L.) is widely cultivated and consumed by Indonesian people. Lettuce production can be increased by applying hydroponic cultivation techniques and adding POC (liquid organic fertilizer). The use of POC is more environmentally friendly and can minimize production costs, with the hope of reducing dependence on AB mix nutrients.*

*This research used the Randomized Complete Block Design (RCBD) method which consisted of 2 factors. The first factor is reducing the nutrient concentration of AB mix which consists of 3 levels, namely reducing the nutrient concentration of AB mix 0%, 25% and 50%. The second factor is the addition of the type of rabbit urine POC which consists of 4 levels, namely without POC, POC + azolla, POC + kipahit, and POC + trembesi. This research consisted of 12 treatment combinations with 3 repetitions resulting in 36 experimental units. The variables observed were plant height, number of leaves, leaf area, longest root length, root volume, leaf greenness level, chlorophyll content, stomata density, stomatal opening width, fresh shoot weight, dry shoot weight, fresh root weight, dry root weight, fresh stover weight, dry stover weight, and harvest index. The data obtained were analyzed using analysis of variance (ANOVA) F test at the 5% level. If significant, a further DMRT (Duncan Multiple Range Test) test is carried out at the 5% level.*

*The results showed that reducing the nutrient concentration of AB mix 0% gave the best results on the variables of plant height and number of leaves (14, 21, 28 and 35 DAT), leaf area, longest root length, chlorophyll content, fresh shoot weight, dry shoot weight, fresh root weight, fresh stover weight, and dry stover weight. Reducing the AB mix nutrient concentration by 25% showed the same results as reducing the AB mix nutrient concentration by 0% on the dry root weight and harvest index variables. Spraying POC rabbit urine + azolla plants gave the best results on the variables plant height 35 DAP, number of leaves 14 DAP, leaf area, chlorophyll content, fresh shoot weight, dry shoot weight, fresh stover weight and dry stover weight. POC of rabbit urine + azolla plants, POC of rabbit urine + kipahit leaves, and POC of rabbit urine + trembesi leaves gave the same results on the harvest index variable. POC of rabbit urine + azolla plants gave the same results as POC of rabbit urine + trembesi leaves at variable number of leaves at 28 and 35 HST. There was no interaction between reducing the AB mix nutrient concentration and adding POC types on the variables plant height, longest root length, root volume, leaf greenness level, chlorophyll content, stomata density, stomata opening width, fresh shoot weight, dry shoot weight, fresh root weight, dry root weight, fresh stover weight, dry stover weight, and harvest index except for the variables number of leaves at 28 HST and leaf area.*