

RINGKASAN

Penelitian ini bertujuan untuk mengetahui pengaruh formula nutrisi unsur kalium dan media tanam terhadap hasil dan serapan K tanaman pakcoy pada sistem hidroponik rakit apung dan mengetahui perlakuan terbaik dari formula nutrisi unsur kalium dan media tanam terhadap hasil dan serapan K tanaman pakcoy pada sistem hidroponik rakit apung. Penelitian dilaksanakan pada bulan Januari sampai Juni 2020 di *screenhouse* Fakultas Pertanian, Universitas Jenderal Soedirman, Laboratorium Agronomi dan Hortikultura serta Laboratorium Tanah dan Sumberdaya Lahan.

Rancangan Penelitian yang digunakan adalah Rancangan Acak Kelompok Lengkap (RAKL) dengan dua faktor dan tiga ulangan. Faktor pertama yaitu formula nutrisi unsur kalium (F) yang terdiri dari lima taraf yaitu F1= 5,2% K, F2= 7,2% K, F3= 9,2% K, F4= 11,2% K, dan F5= 13,2%K. Faktor kedua yaitu media tanam (M) yang terdiri dari dua taraf yaitu M1= *cocopeat* dan M2= *cocopeat+zeolite*. Variabel yang diamati yaitu bobot akar segar, bobot tajuk segar, bobot tanaman segar, bobot tanaman kering, dan serapan K. Data yang diperoleh dianalisis menggunakan uji F, apabila terdapat keragaman dilanjutkan dengan uji *Duncan Multiple Range Test* (DMRT) taraf 5%.

Hasil penelitian menunjukkan bahwa: 1) Formula nutrisi unsur kalium berpengaruh nyata terhadap bobot akar segar, bobot tajuk segar, bobot tanaman segar, bobot tanaman kering dan serapan K. Formula nutrisi unsur kalium dengan 11,2% K memberikan pengaruh terbaik terhadap bobot akar segar, bobot tajuk segar, bobot tanaman segar, bobot tanaman kering dan serapan K. 2) Media tanam berpengaruh nyata terhadap bobot akar segar, bobot tajuk segar, bobot tanaman segar, bobot tanaman kering dan serapan K. Media tanam *cocopeat+zeolite* (50%:50%) memberikan pengaruh terbaik terhadap bobot akar segar, bobot tajuk segar, bobot tanaman segar, bobot tanaman kering dan serapan K.

SUMMARY

This research aimed to determine the effect of nutrient formula of potassium content and growing media for the yield and K uptake of the pakcoy on floating raft hydroponic system and determine the best treatment of nutrient formula of potassium content and growing media for the yield and K uptake of the pakcoy on floating raft hydroponic system. This research was conducted on January to June 2020 in the screenhouse Faculty of Agriculture, Jenderal Soedirman University, the Agronomy and Horticultural Laboratory and the Soil and Land Resources Laboratory.

The research design used was a Randomized Complete Block Design (RCBD) with two factors and three replications. The first factor is nutrient formula of potassium content (F) consisting of five levels, F1= 5,2% K, F2= 7,2%K, F3= 9,2% K, F4= 11,2% K, and F5= 13,2% K. The second factor is the growing media (M) consisting of two levels, M1= cocopeat and M2= cocopeat+zeolite. The variables observed were fresh root weight, fresh crown weight, fresh plant weight, dry plant weight, and K uptake. The data obtained were analyzed using F test if there is diversity followed test by Duncan Multiple Range Test (DMRT) of 5% level.

The results showed that: 1) Nutrient formula of potassium content affected significantly on the fresh root weight, fresh crown weight, fresh plant weight, dry plant weight, and K uptake. Nutrient formula of potassium content at 11,2% K gave the best results on fresh root weight, fresh crown weight, fresh plant weight, dry plant weight, and K uptake. 2) The growing media affected significantly on fresh root weight, fresh crown weight, fresh plant weight, dry plant weight, and K uptake. The growing media of cocopeat+zeolite gave the best results on fresh root weight, fresh crown weight, fresh plant weight, dry plant weight, and K uptake.