

RINGKASAN

MUHAMMAD SYAHRI MUBAROK. “Pengaruh Jenis dan Dosis Pupuk Kandang, serta Dosis Pupuk KCl terhadap Pertumbuhan, Hasil dan Kualitas Bawang Merah di Tanah Podsolik Merah Kuning (PMK)”, di bawah bimbingan Dr. Iwan Sasli, S.P., M.Si., dan Dr. Ir. Tris Haris Ramadhan, M.P.

Bawang merah merupakan tanaman sayur berumbi yang cukup dikenal oleh masyarakat Indonesia maupun Kalimantan Barat. Tanaman ini merupakan komoditas yang mempunyai arti penting bagi masyarakat, baik dari nilai ekonomi maupun gizinya. Tanaman ini merupakan komoditas yang sangat potensial dan prospektif untuk dikembangkan di Kalimantan Barat. Salah satu, upaya yang dapat dilakukan yaitu dengan penggunaan jenis dan dosis pupuk kandang, serta dosis pupuk KCl di tanah podsolik merah kuning.

Penelitian ini bertujuan untuk mengetahui pengaruh jenis dan dosis pupuk kandang, dosis pupuk KCl, serta pengaruh interaksi dari ketiganya terhadap pertumbuhan, hasil dan kualitas bawang merah di tanah PMK. Penelitian ini dilakukan di Instalasi Penelitian dan Pengkajian Teknologi Pertanian (IP2TP) Sungai Kakap BPTP Kalimantan Barat dengan menggunakan polybag, dari bulan November (pembuatan pupuk kandang dan persiapan media tanam) sampai Februari (panen dan pascapanen). Metode penelitian menggunakan rancangan acak kelompok faktorial yang terdiri dari 3 faktor yaitu faktor pertama dosis pupuk KCl (k_0 : 0 kg/ha, k_1 : 200 kg/ha, dan k_2 : 300 kg/ha), faktor kedua jenis pupuk kandang (p_1 : pupuk kandang ayam, p_2 : pupuk kandang kambing, dan p_3 : pupuk kandang sapi), faktor ketiga dosis pupuk kandang (d_1 : 5 ton/ha, d_2 : 10 ton/ha, dan d_3 : 15 ton/ha). Ketiga faktor tersebut dikombinasikan dalam setiap petak percobaan yang terdiri atas $3 \times 3 \times 3 = 27$ kombinasi perlakuan, setiap perlakuan diulang sebanyak tiga kali $27 \times 3 = 81$ satuan perlakuan, dikalikan 7 unit tanaman amatan (3 amatan tetap dan 4 amatan destruktif), sehingga total berjumlah $81 \times 7 = 567$ unit tanaman amatan. Variabel amatan yang diamati terdiri dari tinggi tanaman, jumlah daun pada umur 2, 3, 4, 5, 6, dan 7 minggu setelah tanam (MST), laju pertumbuhan tanaman (LPT), laju asimilasi bersih (LAB), jumlah umbi, diameter umbi, berat basah umbi, berat kering umbi dan penyusutan umbi.

Hasil penelitian menunjukkan bahwa Interaksi jenis pupuk kandang dan dosis pupuk kandang berpengaruh nyata terhadap tinggi tanaman. Dosis pupuk KCl dan jenis pakan menghasilkan interaksi yang berpengaruh nyata terhadap jumlah daun. Pengaruh tunggal dari masing-masing faktor perlakuan, menunjukkan bahwa faktor perlakuan jenis pupuk kandang dan dosis pupuk kandang berpengaruh nyata dan memberikan hasil lebih baik terhadap semua variabel amatan kecuali laju asimilasi bersih dan jumlah umbi, serta mampu meningkatkan kualitas umbi. Pengaruh tunggal dari perlakuan dosis pupuk KCl berpengaruh nyata terhadap laju pertumbuhan tanaman dan laju asimilasi bersih.

SUMMARY

MUHAMMAD SHAHRI MUBAROK. "Effect of Manure Type and Dose, as well as KCl Fertilizer Dose on Onion Growth, Yield and Quality in Red Yellow Podzolic Soil (PMK)", under the guidance of Dr. Iwan Sasli, S.P., M.Si., and Dr. Ir. Tris Haris Ramadhan, M.P.

Shallots are a grassy vegetable plant that is quite well known by the people of Indonesia and West Kalimantan. This plant is a commodity that has an important meaning for the community, both in terms of its economic and nutritional value. This plant is a very potential and prospective commodity to be developed in West Kalimantan. One of the efforts that can be done is by using the type and dose of manure, as well as the dose of KCl fertilizer in red and yellow podzolic soils.

This study aims to determine the influence of the type and dose of manure, the dose of KCl fertilizer, as well as the effect and interaction of three on the growth, yield and quality of onion bulbs in FMD soils. This research was conducted at the Agricultural Technology Research and Assessment Installation (IP2TP) of the BPTP Sungai Kakap in West Kalimantan using polybags, from November (making manure and preparing planting media) to February (harvesting and post-harvest). The research method uses a randomized design of a factorial group consisting of 3 factors, namely the first factor of KCl fertilizer dose (k0: 0 kg/ha, k1: 200 kg/ha, and k2: 300 kg/ha), the second factor of the type of manure (p1: chicken manure, p2: goat manure, and p3: cow manure), the third factor of manure dose (d1: 5 tons/ha, d2 : 10 tons/ha, and d3 : 15 tons/ha). The three factors were combined in each experimental plot consisting of $3 \times 3 \times 3 = 27$ treatment combinations, each treatment was repeated three times $27 \times 3 = 81$ treatment units, multiplied by 7 units of sample plants (3 fixed sample and 4 destructive sample), so that the total amounted to $81 \times 7 = 567$ units of sample plants. The observed sample parameters consisted of plant height and number of leaves at the age of 2, 3, 4, 5, 6, and 7 weeks after planting (MST), plant growth rate (LPT), net assimilation rate (LAB), number of tubers, diameter of tubers, wet weight of tubers, dry weight of tubers and shrinkage of tubers.

The results showed that the interaction of the type of manure and the dose of manure had a significant effect on plant height. The dose of KCl fertilizer and the type of manure resulted in interactions that significantly affected the number of leaves. The single effect of each treatment factor showed that the treatment factor of the type of manure and the dose of manure had a significant effect and gave better results on all observed variables except net assimilation rate and number of tubers, and was able to improve tuber quality. The single effect of KCl fertilizer dose treatment had a significant effect on plant growth rate and net assimilation rate.