

RINGKASAN

Bawang merah termasuk komoditas hortikultura serta mempunyai nilai ekonomis tinggi dan kaya akan kandungan gizinya. Bawang merah juga sebagai sumber penghasilan petani, baik dilihat dari sisi pemenuhan konsumsi nasional ataupun potensinya sebagai penghasil devisa negara. Pemupukan suatu faktor penentu dalam usaha meningkatkan hasil. Pupuk NZEO-SRPlus adalah pupuk alami yang menggunakan bahan N dari Urea, Si, zeolite, arang sekam, kapur, dan kombinasi dari bahan pelekak montmorilonit, nano zeolite, asam humat.

Penelitian telah dilaksanakan di Desa Pliken, Kecamatan Kembaran, Kabupaten Banyumas, Laboratorium Agronomi dan Hortikultura, Laboratorium Tanah, Fakultas Pertanian Universitas Jenderal Soedirman, Purwokerto. Penelitian berlangsung selama 3 bulan. Penelitian ini menggunakan rancangan acak kelompok lengkap yang terdiri 2 faktor dengan 3 ulangan. Faktor pertama yaitu waktu pemberian pupuk dengan 2 perlakuan yang terdiri dari awal pemberian 100% dan awal pemberian 50% + 30 hst 50 %. Faktor kedua yaitu dosis pupuk dengan 5 kali perlakuan yang terdiri dari kontrol/tanpa NZEO-SRplus, 125 kg NZEO-SRPlus, 250 kg NZEO-SRPlus, 375 kg NZEO-SRPlus, 500 kg NZEO-SRPlus, sehingga terdapat 10 kombinasi perlakuan. Perlakuan diulang 3 kali sehingga terdapat 30 unit percobaan. Variabel yang diamati yaitu tinggi tanaman (cm), diameter umbi (cm), jumlah anakan (buah), jumlah umbi (buah), panjang akar (cm), bobot tanaman segar (g), bobot tanaman kering (g), bobot umbi kering (g), bobot umbi segar (g). Data analisis menggunakan analisis ragam (ANOVA), apabila hasil berpengaruh nyata dilanjutkan dengan *Duncan's Multiple Range Test* (DMRT) pada taraf 5 %.

Hasil penelitian menunjukkan bahwa waktu pemberian pupuk NZEO-SRPlus yang terbaik adalah awal pemberian 50 % + 30 hst 50 % meningkatkan tinggi tanaman (26,52 cm). Dosis pupuk NZEO-SRPlus dengan 500 kg/ha mampu meningkatkan variabel tinggi tanaman (27,28 cm), bobot tanaman segar (39,36 g). Terdapat pengaruh interaksi waktu pemberian dan dosis pupuk NZEO-SRPlus pada tinggi tanaman (28,87 cm), jumlah anakan (4,91 buah), jumlah umbi (7,93 buah).

SUMMARY

Shallots are a horticultural commodity with high economic value and rich nutritional content. They also serve as a source of income for farmers, both in terms of meeting national consumption and their potential as a foreign exchange earner. Fertilization is a determining factor in increasing yields. NZEO-SRPlus fertilizer is a natural fertilizer containing nitrogen from urea, silicon, zeolite, rice husk charcoal, lime, and a combination of montmorillonite, nanozeolite, and humic acid binders.

The research was conducted in Pliken Village, Kembaran District, Banyumas Regency, in the Agronomy and Horticulture Laboratory, Soil Laboratory, Faculty of Agriculture, Jenderal Soedirman University, Purwokerto. The study lasted three months. A randomized complete block design was used, consisting of two factors and three replications. The first factor was fertilizer application time, with two treatments: initial application of 100% and initial application of 50% + 30 days after planting (day after planting) of 50%. The second factor is the fertilizer dose with 5 treatments consisting of control/without NZEO-SRplus, 125 kg NZEO-SRplus, 250 kg NZEO-SRplus, 375 kg NZEO-SRplus, 500 kg NZEO-SRplus, so there are 10 treatment combinations. The treatment was repeated 3 times so there are 30 experimental units. The variables observed were plant height (cm), tuber diameter (cm), number of tillers (fruit), number of tubers (fruit), root length (cm), fresh plant weight (g), dry plant weight (g), dry tuber weight (g), fresh tuber weight (g). Data analysis used analysis of variance (ANOVA), if the results were significantly affected, it was continued with Duncan's Multiple Rank Test (DMRT) at the 5% level.

The results of the study showed that the best time for administering NZEO-SRPlus fertilizer was the initial application of 50% + 30 days after planting, 50% increased plant height (26.52 cm). The dose of NZEO-SRPlus fertilizer with 500 kg/ha was able to increase the variable plant height (27.28 cm), fresh plant weight (39.36 g). There was an interaction effect of the time of administration and the dose of NZEO-SRPlus fertilizer on plant height (28.87 cm), the number of tillers (4.91 pieces), the number of tubers (7.93 pieces).