ABSTRAK

PERUBAHAN PRODUKTIVITAS RUMPUT PAKCHONG SEBAGAI DAMPAK PEMBERIAN ZAT MUTAGEN KOLKISIN

Oleh

Ahmad Ibrahim Abdullah

Tujuan penelitian ini yaitu untuk melihat pengaruh konsentrasi kolkisin dan umur tunas, serta interaksinya terhadap produktivitas rumput pakchong. Penelitian ini dilaksanakan pada Agustus-November 2025 di Laboratorium Lapang Terpadu, Fakultas Pertanian, Universitas Lampung, Laboratorium Nutrisi dan Makanan Ternak, Jurusan Peternakan, Fakultas Pertanian, Universitas Lampung. Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan pola faktorial 4×3 dengan 3 kali ulangan. Faktor pertama adalah konsentrasi kolksin terdiri dari P0 (0%), P1 (0,2%), P2 (0,4%), dan P3 (0,6%). Faktor kedua adalah umur tunas, terdiri dari:T1 (0 hari), T2 (3 hari), dan T3 (6 hari). Data yang didapat dianalisis dengan Analisis Sidik Ragam (ANOVA) dan dilanjutkan dengan uji lanjut Beda Nyata Terkecil (BNT) pada tingkat signifikan 5%. Hasil penelitian menunjukkan bahwa tidak terdapat interaksi ($P>0,05$) antar perlakuan terhadap jumlah anakan, namun perlakuan konsentrasi kolkisin berpengaruh nyata ($P<0,05$) terhadap jumlah anakan. Rata-rata jumlah anakan tertinggi yaitu 8,50 terdapat pada perlakuan P1 (0,2%). Terdapat interaksi ($P<0,05$) antar perlakuan terhadap produksi bahan segar dan bahan kering. Produksi tertinggi bahan segar yaitu 6563,44 gram dan bahan kering tertinggi yaitu 767,31 gram yang terdapat pada perlakuan P1T2.

Kata Kunci: Kolkisin, Poliploidi, Produktivitas, Rumput Pakchong.

ABSTRACT

EFFECT OF COLCHICINE MUTAGEN TREATMENT ON THE PRODUCTIVITY OF PAKCHONG GRASS

By

Ahmad Ibrahim Abdullah

The objective of this study was to examine the effects of colchicine concentration, shoot age, and their interaction on the productivity of Pakchong grass. The research was conducted from August to November 2025 at the Integrated Field Laboratory and the Animal Nutrition and Feed Laboratory, Department of Animal Husbandry, Faculty of Agriculture, University of Lampung. The experimental design used was a Completely Randomized Design (CRD) with a 4×3 factorial pattern and three replications. The first factor was colchicine concentration, consisting of P0 (0%), P1 (0.2%), P2 (0.4%), and P3 (0.6%). The second factor was shoot age, consisting of T1 (0 days), T2 (3 days), and T3 (6 days). Data were analyzed using Analysis of Variance (ANOVA), followed by the Least Significant Difference (LSD) test at a 5% significance level. The results showed that there was no significant interaction ($P>0.05$) between treatments regarding the number of tillers; however, the colchicine concentration treatment significantly influenced ($P<0.05$) the number of tillers. The highest average number of tillers (8.50) was found in the P1 treatment (0.2%). There was a significant interaction ($P<0.05$) between treatments regarding fresh matter and dry matter production. The highest fresh matter production (6563.44 grams) and dry matter production (767.31 grams) were observed in the P1T2 treatment.

Keywords: Colchicine, Polyploidy, Productivity, Pakchong Grass.