

## ABSTRAK

### EVALUASI BOBOT KERING TAJUK DAN BOBOT (*HEAD*) BEBERAPA GENOTIPE SORGUM (*Sorghum bicolor* [L.] Moench) MELALUI SIDIK LINTAS (*PATH ANALYSIS*)

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Penelitian ini bertujuan untuk mengevaluasi bobot kering tajuk dan bobot dompolan (*head*) pada berbagai genotipe sorgum, menghitung korelasi antara komponen pertumbuhan dan hasil berbagai genotipe sorgum, dan menentukan pengaruh langsung dan tidak langsung berbagai komponen pertumbuhan dan hasil terhadap bobot dompolan (*head*) yang dihitung menggunakan analisis lintas. Penelitian ini dilakukan di Desa Sukanegara, Kecamatan Tanjung Bintang, Kabupaten Lampung Selatan, Provinsi Lampung, pada April sampai November 2019. Perlakuan genotipe disusun secara faktor tunggal dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan tiga ulangan. Terdapat tujuh genotipe sorgum yang terdiri dari Super-1, Mandau, P/I 150-21-A CYMMIT, P/F 5-193-C, P/F 10-90-A, UPCA, dan Talaga Bodas. Analisis data meliputi analisis ragam, Beda Nyata Terkecil (BNT) pada taraf 5%, korelasi dan sidik lintas dilakukan menggunakan program Minitab versi 17. Hasil penelitian menunjukkan terdapat variasi bobot kering tajuk dan bobot dompolan (*head*) akibat perbedaan genotipe. Genotipe Mandau dan P/F 10-90 A menghasilkan bobot kering tajuk (66,93 g dan 56,46 g) lebih tinggi dibanding genotipe lain. Genotipe P/F 10-90 A dan Mandau menghasilkan bobot dompolan (*head*) (56,81 g dan 52,68 g) lebih tinggi dibanding genotipe lain. Bobot kering tajuk memiliki korelasi positif dengan bobot dompolan (*head*) ( $r=0,76^{**}$ ). Kemudian terdapat pula korelasi antara bobot dompolan (*head*) dan bobot biji ( $r=0,90^{**}$ ). Berdasarkan analisis lintas, terdapat pengaruh langsung bobot kering tajuk terhadap bobot dompolan (*head*) sebesar 0,6037. Kemudian, bobot biji memiliki pengaruh langsung terhadap bobot dompolan (*head*) sebesar 0,7373. Terdapat pula pengaruh tidak langsung bobot kering tajuk terhadap bobot dompolan (*head*) melalui bobot biji sebesar 0,5879.

**Kata Kunci:** Bobot dompolan (*head*), bobot kering tajuk, genotipe, dan sorgum.

## ABSTRACT

### EVALUATION OF SHOOT DRY WEIGHT DAN HEAD WEIGHT IN DIFFERENT SORGHUM (*Sorghum bicolor* [L.] Moench) GENOTYPES BY PATH ANALYSIS

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This experiment aimed to evaluate shoot dry weight and head weight of some genotypes sorghum, to calculate the correlation between growth and yield components of several sorghum genotypes, and to determine the direct and indirect effects between growth and yield variable by path analysis. This research was conducted in Sukanegara Village, Tanjung Bintang District, South Lampung Regency from April to November 2019. The treatment was arranged by single factor in Completely Randomized Block Design with three replication. The single factor treatment is sorghum genotype. There are seven sorghum genotypes consisting of Super-1, Mandau, P/I 150-21-A CYMMIT, P/F 5-193-C, P/F 10-90-A, UPCA, dan Talaga Bodas. Data analysis included analysis of variance, Least Significant Different (LSD) with 5% confidence of level, correlation, and path analysis using the Minitab version 17. The result showed that genotype Mandau and P/F 10-90 A had a higher shoot dry weight (62,93 g and 57,50 g) than other genotypes. P/F 10-90 A and Mandau had a higher head weight (57,72 g and 52,68 g) than other genotypes. The result of correlation analysis showed that in the growth and yield component had a positive correlation, which was shown in the variable of shoot dry weight and head weight ( $r = 0,76^{**}$ ). Then there was also a correlation between yield component and other yield was indicated by the head weight and seed weight ( $r = 0,90^{**}$ ). There was direct effect between shoot dry weight on head weight with the value 0,6037. Then, seed weight had a direct effect on head weight with the value 0,7373. There was also indirect effect between shoot dry weight on head weight through seed weight with the value 0,5879.

**Keywords:** Genotype, head weight, shoot dry weight, and sorghum.