ABSTRAK

PENGARUH PEMBERIAN ZAT PENGATUR TUMBUH GIBERELIN (GA3) DAN MOL BONGGOL PISANG (*Musa balbisiana* Colla) TERHADAP PERTUMBUHAN TANAMAN CABAI MERAH BESAR (*Capsicum annuum* L.)

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Cabai merah besar yaitu tanaman herba yang mempunyai rasa pedas dan menjadi salah satu jenis cabai yang paling banyak digunakan masyarakat Indonesia dalam skala rumah tangga sebesar 61% sehingga tingkat produksinya perlu ditingkatkan dengan menggunakan pemberian giberelin dan Mikroorganisme Lokal (MOL) bonggol pisang. Penelitian ini bertujuan untuk mengetahui pengaruh konsentrasi giberelin (GA3) yang terbaik terhadap pertumbuhan cabai merah besar, mengetahui konsentrasi MOL bonggol pisang batu yang terbaik, dan mengetahui interaksi antara pemberian giberelin dan MOL bonggol pisang. Penelitian dilaksanakan pada bulan Februari sampai Maret 2024 di Laboratorium Botani, FMIPA, Universitas Lampung. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) disusun secara faktorial. Faktor pertama pemberian giberelin dengan 2 taraf konsentrasi yaitu 0% dan 10%. Faktor kedua pemberian MOL Bonggol Pisang dengan 3 taraf konsentrasi yaitu 0%, 10%, dan 20% dengan pengulangan sebanyak 5 kali sehingga didapatkan 30 satuan percobaan. Parameter yang diamati yaitu tinggi tanaman (cm), panjang akar (cm), berat basah (gr), berat kering (gr), kadar air relatif (gr), kandungan klorofil, dan visualisasi daun. Data yang dihasilkan disajikan dalam bentuk kualitatif yaitu dokumentasi foto dan data kuantitatif yang akan dianalisis menggunakan ANOVA dilanjutkan dengan uji Tukey dengan taraf 5%. Hasil penelitian ini menunjukkan bahwa pengaruh pemberian giberelin 10% dan MOL bonggol pisang 20% memberikan pengaruh terhadap berat kering klorofil a, b, dan klorofil total pada tanaman cabai merah besar.

Kata kunci : Cabai merah besar, Giberelin, Mikroorganisme Lokal, Bonggol Pisang, Pertumbuhan

ABSTRACT

The Effect of the Application of the Plant Growth Regulator Gibberellin (GA3) and Banana Corm MOL (Musa balbisiana Colla) on the Growth of Large Red Chili Plants (Capsicum annuum L.)

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Large red chili (Capsicum annuum L.) is a herbaceous plant with a spicy taste and is one of the most widely used types of chili by Indonesian households, accounting for about 61% of household consumption. Therefore, its production needs to be increased through the application of gibberellin and Local Microorganisms (MOL) derived from banana corms. This study aimed to determine the best concentration of gibberellin (GA3) for the growth of large red chili plants, to identify the most effective concentration of MOL from batu banana corm, and to examine the interaction between the application of gibberellin and MOL from banana corms. The research was conducted from February to March 2024 at the Botany Laboratory, Faculty of Mathematics and Natural Sciences (FMIPA), University of Lampung. This study used a Completely Randomized Design (CRD) arranged factorially. The first factor was the application of gibberellin with two concentration levels: 0% and 10%. The second factor was the application of banana corm MOL with three concentration levels: 0%, 10%, and 20%. Each treatment was repeated five times, resulting in 30 experimental units. The observed parameters included plant height (cm), root length (cm), fresh weight (g), dry weight (g), relative water content (g), chlorophyll content, and leaf visualization. The resulting data were presented in qualitative form (photo documentation) and quantitative data, which were analyzed using ANOVA followed by Tukey's test at a 5% significance level. The results showed that the application of 10% gibberellin and 20% banana corm MOL had a significant effect on dry weight as well as chlorophyll a, chlorophyll b, and total chlorophyll content in large red chili plants.

Keywords: *Large red chili, Gibberellin, Local Microorganisms, Banana Corm, Growth*