

ABSTRAK

Penelitian ini bertujuan untuk 1) menentukan macam pupuk kandang yang memiliki sinergi terbaik dengan JMA sehingga mendukung pertumbuhan, perkembangan, dan hasil cabai keriting yang ditanam secara organik di lahan pasir pantai, dan 2) menentukan macam pupuk kandang yang terbaik untuk memaksimalkan pertumbuhan, perkembangan, dan hasil tanaman cabai keriting yang ditanam secara organik di lahan pasir pantai berdasarkan pada kedekatannya dengan karakteristik kimia bahan organik yang dikehendaki oleh pertanaman cabai keriting tersebut. Percobaan lapangan disusun menggunakan Rancangan Lingkungan Petak Berjalur (Strip Plot). Faktor pertama adalah macam pupuk kandang, yaitu tanpa pupuk (kontrol negatif), pupuk kandang ayam, pupuk kandang sapi, pupuk guano, pupuk kandang puyuh, dan pupuk urea (kontrol positif). Faktor kedua adalah pemberian mikoriza, yaitu tanpa mikoriza dan diberi mikoriza saat pesemaian. Pengamatan dilakukan pada variabel karakter fisiologis, pertumbuhan, komponen hasil, dan hasil cabai keriting. Data yang diperoleh selanjutnya dianalisis menggunakan sidik ragam dan apabila terdapat beda nyata antar perlakuan dilanjutkan uji jarak berganda Duncan (DMRT) pada tingkat kepercayaan 95%. Hasil penelitian memberikan informasi bahwa pupuk guano adalah jenis pupuk kandang yang paling mampu bersinergi dengan JMA karena memiliki kadar C-organik, kadar P_2O_5 , kadar Ca, dan C/N tertinggi jika dibandingkan dengan pupuk kandang sapi, ayam, maupun puyuh. Pupuk guano adalah jenis pupuk kandang yang memiliki kemampuan terbaik untuk mendukung pertumbuhan, perkembangan, dan hasil cabai keriting yang dibudidayakan secara organik di lahan pasir pantai karena memiliki C-organik pada kisaran 30-60%, P_2O_5 pada kisaran 3-4%, dan K_2O pada kisaran 0-1% seperti yang diinginkan oleh tanaman cabai keriting.

Kata kunci: cabai keriting, lahan pasir, mikoriza, organik, dan pupuk kandang

ABSTRACT

This study aims to 1) determine the type of manure that has the best synergy with JMA so as to support the growth, development, and yield of curly chillies grown organically in coastal sandy land, and 2) determine the best type of manure to maximize growth, development, and the results of curly chilli plants that are organically grown in coastal sandy bases are based on their proximity to the chemical characteristics of the organic material desired by the planting of these curly chillies. Field experiments were arranged using Strip Plot Environment Design. The first factor is the type of manure, which is without fertilizer (negative control), chicken manure, cow manure, guano fertilizer, quail manure, and urea fertilizer (positive control). The second factor is the addition of mycorrhizae, that is without mycorrhizae and given mycorrhizae during nursery. Observations were made on the variables of physiological character, growth, yield components, and yield of curly chili. The data obtained were further analyzed using variance and if there were significant differences between treatments followed by Duncan's multiple range test (DMRT) at a 95% confidence level. The results of the study provide information that guano fertilizer is the type of manure that is most able to synergize with JMA because it has the highest levels of C-organic, P_2O_5 levels, levels of Ca, and C/N when compared with cow, chicken, and quail manure. Guano fertilizer is a type of manure that has the best ability to support growth, development, and yield of curly chillies that are organically cultivated in coastal sandy lands because they have C-organic in the range of 30-60%, P_2O_5 in the range of 3-4%, and K_2O in the range of 0-1% as desired by curly chili plants.

Keywords: curly chili, manure, mycorrhizae, organic and sandy land