

RINGKASAN

Lahan pasir pantai sangat potensial untuk dimanfaatkan menjadi lahan budidaya yang produktif terutama untuk budidaya tanaman hortikultura. Penanaman kubis bunga dapat memanfaatkan lahan pasir pantai dengan menggunakan varietas kubis bunga yang sesuai untuk dataran rendah. Budidaya tanaman kubis bunga di lahan pasir pantai dihadapkan beberapa kendala seperti kesuburan tanah yang rendah, kemampuan memegang dan menyimpan air yang rendah. Salah satu alternatif yang dapat diterapkan yaitu pemberian pembenah tanah dengan memanfaatkan tanah vertisol dan pupuk kandang. Penelitian ini bertujuan untuk menentukan: (1) jenis pembenah tanah yang paling efektif untuk pertumbuhan dan hasil kubis bunga, (2) takaran pembenah tanah yang paling optimal untuk pertumbuhan dan hasil kubis bunga dan (3) interaksi jenis dan takaran pembenah tanah untuk pertumbuhan dan hasil kubis bunga. Penelitian dilaksanakan di lahan pasir pantai Jetis, Desa Banjarsari, Kecamatan Nusawungu, Kabupaten Cilacap. Penelitian berlangsung mulai Juli sampai dengan September 2017.

Rancangan percobaan yang digunakan adalah Rancangan Acak Kelompok Lengkap (RAKL) faktorial. Faktor pertama jenis pembenah tanah terdiri atas Vertisol, campuran pupuk kandang ayam dan sapi, Vertisol dan campuran pupuk kandang ayam dan sapi. Faktor kedua takaran pembenah tanah terdiri dari 100%, 200%, 300%. Variabel yang diamati adalah tinggi tanaman, jumlah daun, panjang daun, luas daun, kehijauan daun, volume akar, panjang akar, bobot tanaman segar, bobot akar segar, bobot batang segar, bobot daun segar, bobot tanaman kering, bobot akar kering, bobot batang kering, bobot daun kering, umur pembentukan bunga, diameter bunga, hasil bunga segar dan hasil bunga kering.

Hasil penelitian menunjukkan bahwa (1) jenis pembenah tanah Vertisol 30t/ha dan campuran pupuk kandang sapi dan ayam 20 t/ha berpengaruh terhadap tinggi tanaman, jenis pembenah tanah campuran pupuk kandang sapi dan ayam 20 t/ha berpengaruh nyata pada bobot bunga kering serta menghasilkan potensi hasil bunga segar 13,07 t/ha (2) takaran pembenah tanah 300% (60 t/ha) terhadap tinggi tanaman dan kadar kehijauan daun (3) terdapat interaksi Vertisol dan campuran pupuk kandang sapi dan ayam, takaran pembenah tanah 100% berpengaruh pada bobot daun segar, bobot tanaman segar, bobot tanaman kering serta menghasilkan potensi hasil bunga segar 12,86 t/ha.

Kata kunci : jenis pembenah tanah, takaran pembenah tanah, kubis bunga

SUMMARY

Coastal sand land area is highly potential as the cultivated land area especially horticulture plant. Cauliflower cultivation can utilize coastal sand land area with the right variety of lowland area. Cauliflower cultivation in coastal sand land area had problems such as low soil fertility and low capability to hold water. One of the alternative way to solve those problems is by applied the soil ameliorant used vertisol and manure. This research aimed to determine: 1) the most effective type of soil ameliorant for growth and yield of cauliflower, 2) the most optimal dosage of soil ameliorant for growth and yield of cauliflower and 3) the interaction of soil ameliorant type and dosage for growth and yield of cauliflower.

This research was conducted in sand coastal area of Pantai Jetis, Banjarsari village, Nusawungu sub-district, Cilacap regency started from April to September 2017. The experimental design used was Randomized Block Design (RCBD) factorial. This research consisted of 2 factors: the type of soil ameliorant consisted of 3 levels and the dosage of soil ameliorant consisted of 3 levels, with 9 treatment combinations in total. The first factor was the dosage of soil ameliorant consisted of Vertisol, mixture of chicken manure & cow, Vertisol and mixture of chicken manure & cow. The second factor was the dosage of soil ameliorant consisted of 100%, 200%, 300%. The variables observed were plant height, leaf number, leaf length, leaf area, chlorophyll content, root volume, root length, fresh plant weight, fresh root weight, fresh stem weight, fresh leaf weight, dry plant weight, dry root weight, dry stem weight, dry leaf weight, age of flower formation, flower diameter, fresh flower yield and dried flower yield.

The results showed that (1) the type of soil ameliorant of 30 t/ha Vertisol and 20 t/ha mixture of chicken & cow manure gave the good response for growth of cauliflower in which plant height, while the soil ameliorant type of 20 t/ha mixture of chicken and cow manure gave the best response on dry flower weight and fresh flower yield with 13,07 t/ha (2) 300% dosage of soil ameliorant was the most optimum used for growth and yield of the cauliflower, it gave the best response for plant height and chlorophyll content (3) there was an interaction on Vertisol and mixture of chicken & cow manure , 100% dosage of soil ameliorant gave a good response on fresh leaf weight, fresh plant weight, dry plant weight, and the yield of fresh crops with 12,86 t/ha.

Keywords: type of soil ameliorant, dosage of soil ameliorant, cauliflowers