

RINGKASAN

Lahan pasir pantai merupakan lahan marginal dengan salah satu kendala adanya angin laut bergaram yang mengganggu pertumbuhan tanaman. Lahan ini ke depan akan dibutuhkan untuk pengembangan tanaman pangan ketika lahan potensial sudah semakin terbatas. Pada prinsip berbagai jenis komoditas hortikultura seperti tomat dan kubis dapat dikembangkan pada lahan ini, namun ketahanan tanaman terhadap angin laut bersalinitas tinggi bervariasi. Pada penelitian ini akan dikaji penanaman tomat dan kubis dengan modifikasi beberapa jenis penghalang angin di musim hujan dan kemarau.

Penelitian ini menggunakan Rancangan Acak Kelompok Lengkap (RAKL) Petak-Petak Terbagi (Split-Split Plot) dengan tiga faktor dan tiga ulangan. Faktor pertama yaitu jenis musim (Kemarau dan Penghujan). Faktor kedua yaitu jenis pematah angin (Tanpa pematah angin, pematah angin plastik 1,5 m, pematah angin jagung 3 baris, pematah angin jagung sela). Faktor ketiga yaitu jenis tanaman [Tanaman peka salinitas (tomat) dan tanaman toleran salinitas (kubis)]. Data hasil penelitian dianalisis menggunakan Uji F dan Uji lanjut DMRT pada taraf kesalahan 5%. Variabel yang diamati pada komponen pertumbuhan tanaman yaitu variabel tinggi tanaman, jumlah daun, luas daun, bobot segar akar, bobot segar batang, bobot segar daun, bobot kering akar, bobot kering batang, bobot kering daun, jumlah cabang. Variabel yang diamati pada komponen hasil tanaman yaitu variabel bobot segar buah, bobot segar krop, jumlah buah, volume buah, volume krop, diameter buah, diameter krop, jumlah bunga, jumlah bunga jadi, persentase bunga jadi, dan hasil tanaman.

Hasil penelitian menunjukkan bahwa jenis pematah angin pada musim kemarau dan penghujan berpengaruh nyata terhadap variabel jumlah bunga, bobot kering akar, batang dan buah dengan hasil terbaik didapat pada penggunaan pematah angin plastik 1,5 m. Jenis tanaman pada musim kemarau dan penghujan berpengaruh nyata terhadap variabel tinggi tanaman, jumlah cabang, jumlah bunga dan buah, bobot segar buah dan krop, diameter buah dan krop, volume buah, bobot kering batang, akar, buah dan krop, dan hasil tanaman.

SUMMARY

Beach sandy land is a marginal area with one of the challenges being the saline sea winds that disrupt plant growth. This land will be needed for the development of food crops in the future as potential land becomes increasingly limited. In principle, various types of horticultural commodities such as tomatoes and cabbages can be developed in this area, but the resistance of plants to high salinity sea winds varies. This research will study the planting of tomatoes and cabbages with the modification of several types of windbreaks during the rainy and dry seasons.

This research uses a Completely Randomized Block Design (CRBD) with Split-Split Plot arrangements with three factors and three replications. The first factor is the type of season (Dry and Rainy). The second factor is the type of windbreaker (No windbreaker, 1.5 m plastic windbreaker, 3-row corn windbreaker, intercropped corn windbreaker). The third factor is the type of plant [Salt-sensitive plant (tomato) and salt-tolerant plant (cabbage)]. The data from the study were analyzed using the F-Test and DMRT follow-up tests at a 5% error rate. The variables observed in the plant growth components are the height of the plant, number of leaves, leaf area, fresh root weight, fresh stem weight, fresh leaf weight, dry root weight, dry stem weight, dry leaf weight, and number of branches. The variables observed in the plant yield components are fresh fruit weight, fresh bunch weight, number of fruits, fruit volume, bunch volume, fruit diameter, bunch diameter, number of flowers, number of fruits formed, percentage of flowers formed, and plant yield.

The research results show that the type of windbreaker during the dry and rainy seasons has a significant effect on the variables of the number of flowers, dry weight of roots, stems, and fruits, with the best results obtained from the use of a 1.5 m plastic windbreaker. The type of plant during the dry and rainy seasons significantly affects the variables of plant height, number of branches, number of flowers and fruits, fresh weight of fruits and clusters, diameter of fruits and clusters, volume of fruits, dry weight of stems, roots, fruits, and clusters, and crop yield.