

RINGKASAN

Berbagai jenis jagung yang dibudidayakan di Indonesia, salah satu diantaranya adalah jagung manis (*Zea mays saccharata*), atau sering disebut sweet corn. Banyak faktor yang mempengaruhi produktifitas tanaman jagung manis, selain faktor genetik, iklim dan kesuburan tanah juga dipengaruhi oleh teknik budidaya tanaman, salah satunya adalah sistem tanam. Sistem tanam yang sering digunakan petani adalah sistem konvensional sementara sistem tanam jarak legowo jarang digunakan oleh para petani pada tanaman jagung manis.

Penelitian ini dilaksanakan di Lahan Kelompok Tani Madani, Jln. Kelapa 3, Komplek Rispa IV, Gedung Johor Kecamatan Medan Johor Kota Madya Medan, Provinsi Sumatera Utara dengan ketinggian Tempat ± 25 meter dpl, dengan topografi datar. Penelitian ini dimulai bulan Oktober sampai Desember 2021. Di bimbing oleh ibu Ir. Markhaini, M.S. selaku ketua dan ibu Ir. Noverina Chaniago, M.P. selaku anggota komisi pembimbing. Penelitian ini bertujuan untuk memperoleh informasi keragaan kuantitatif dan kualitatif beberapa varietas jagung manis yang ditanam dengan sistem tanam konvensional dan jarak legowo.

Rancangan yang digunakan adalah rancangan petak terbagi faktorial yang terdiri dari dua faktor yaitu petak utama yang terdiri dari 3 taraf yaitu P1 (sistem tanam konvensional), P2 (sistem tanam jarak legowo 2:1) dan P3 (sistem tanam jarak legowo 3:1) kemudian anak petak yang terdiri dari V1 (Zm 866), V2 (Baruna), V3 (Bonanza) dan V4 (Exsotic). Parameter yang diamati adalah tinggi tanaman (cm), diameter batang (mm), Jumlah daun (helai), luas daun (cm), umur berbunga tassel (HST), umur berbunga silk (HST), umur panen (HST), panjang tongkol (cm), diameter tongkol (mm), warna daun, warna batang, warna bunga tassel, warna bunga silk dan warna biji.

Hasil penelitian menunjukkan bahwa perlakuan sistem tanam tidak berpengaruh terhadap keragaan kuantitatif seperti tinggi tanaman, diameter batang, jumlah daun, luas daun, panjang tongkol dan diameter tongkol tetapi berpengaruh pada keragaan kuantitatif seperti umur berbunga tassel, umur berbunga silk dan umur panen, perlakuan varietas tidak berpengaruh terhadap keragaan kuantitatif seperti tinggi tanaman, diameter batang, jumlah daun, luas daun, panjang tongkol dan diameter tongkol tetapi berpengaruh pada keragaan kuantitatif seperti umur berbunga tassel, umur berbunga silk dan umur panen dan perlakuan kombinasi sistem tanam dan varietas tidak berpengaruh terhadap keragaan kuantitatif seperti tinggi tanaman, diameter batang, jumlah daun, panjang tongkol, diameter tongkol, keragaan kualitatif seperti warna daun dan warna bunga silk, tetapi berpengaruh terhadap keragaan kuantitatif luas daun, keragaan kualitatif warna batang, warna bunga tassel dan warna biji.

Kata kunci : Sistem tanam dan varietas

SUMMARY

Various types of corn are cultivated in Indonesia, one of which is sweet corn (*Zea mays saccharata*), or often called sweet corn. Many factors affect the productivity of sweet corn plants, in addition to genetic factors, climate and soil fertility are also influenced by plant cultivation techniques, one of which is the planting system. The cropping system that is often used by farmers is the conventional system while the jajar legowo planting system is rarely used by farmers on sweet corn plants.

This research was conducted at the Land of the Madani Farmer Group, Jln. Kelapa 3, Rispa IV Complex, Johor Building, Medan Johor District, Medan City, North Sumatra Province with an altitude of ± 25 meters above sea level, with a flat topography. This research started from October to December 2021. Supervised by Mrs. Ir. Markhaini, M.S. as chairman and Mrs. Ir. Noverina Chaniago, M.P. as a member of the advisory committee. This study aims to obtain quantitative and qualitative performance information of several varieties of sweet corn grown with conventional and jajar legowo cropping systems.

The design used was a factorial split plot (rpt) design consisting of two factors, namely the main plot consisting of 3 levels, namely P1 (conventional planting system), P2 (jajar legowo planting system 2:1) and P3 (lajar legowo planting system 3:1) then subplots consisting of V1 (Zm 866), V2 (Baruna), V3 (Bonanza) and V4 (Exsotic). Parameters observed were plant height (cm), stem diameter (mm), number of leaves (strands), leaf area (cm), tassel flowering age (HST), silk flowering age (HST), harvest age (HST), length of cob (cm), cob diameter (mm), leaf color, stem color, tassel flower color, silk flower color and seed color.

The results showed that the cropping system treatment had no effect on quantitative performances such as plant height, stem diameter, number of leaves, leaf area, ear length and ear diameter, but had an effect on quantitative performances such as tassel flowering age, silk flowering age and harvest age. effect on quantitative performances such as plant height, stem diameter, number of leaves, leaf area, ear length and diameter of the ear but affect on quantitative performances such as tassel flowering age, silk flowering age and harvest age and the combination treatment of planting system and variety had no effect on quantitative performance such as plant height, stem diameter, number of leaves, length of the ear, diameter of the ear, qualitative performances such as leaf color and silk flower color, but affect the quantitative performance of leaf area, qualitative performance of stem color, tassel flower color and seed color.

Keywords: Planting system and varieties