

ABSTRAK

Irawaty Rosalyne, Pengaruh Pengolahan Tanah Terhadap Keragaman dan kelimpahan gulma Serta Pertumbuhan dan Produksi Jagung pada Jarak Tanam yang Berbeda, dibawah bimbingan B.S.J.Damanik, sebagai Ketua Komisi Pembimbing dan Hapsoh, sebagai Anggota Pembimbing

Penelitian ini dilaksanakan dilokasi BPP Dinas Pertanian Kota Medan, Desa Selambo Amplas, Kecamatan Medan Denai. Jenis tanah Ultisol pH 5.16. Penelitian ini berlangsung mulai bulan Pebruari sampai dengan Juni 2009. Menggunakan Rancangan Petak Terbagi-bagi (Split-split Design) 3 faktor dan masing-masing 3 taraf yaitu faktor pertama perlakuan varietas terdiri atas varietas pulut lokal (V_1), Srikandi putih 1 (V_2) dan Srikandi kuning 1 dan faktor kedua pengolahan tanah terdiri atas olah tanah sempurna (P_1), olah tanah minimum gulmanya dikikis (P_2) dan tanpa olah tanah gulmanya disemprot herbisida (P_3) serta faktor ketiga jarak tanam yaitu 50x20 cm (J_1), 70x20 cm (J_2) dan 90x20 (J_3)

Hasil penelitian menunjukkan perlakuan varietas srikandi kuning 1 (V_3) memberikan hasil terbaik terhadap tinggi tanaman umur 6 dan 9 MST, diameter batang umur 3 MST, total luas daun umur 9 MST, bobot berangkasan daun dan produksi biji kering pada kadar air 14% perpetak. Perlakuan pengolahan tanah yang terbaik dihasilkan olah tanah sempurna (P_1) terhadap tinggi tanam umur 6 dan 9 MST, diameter batang umur 3, 6, 9 dan 12 MST, total luas daun umur 9 MST, bobot berangkasan daun umur umur 9 dan 12 MST, kehadiran jumlah gulma paitan (*Paspalum conjugatum*) lebih sedikit umur 6 MST, jumlah gulma pahit (*Axonopus compressus*) umur 12 MST dan terendah bobot kering gulmanya umur 3 MST serta laju tumbuh pertanaman 1 dan 2 lebih tinggi. Perlakuan jarak tanam terbaik dan tertinggi dihasilkan 50x20 cm (J_1) terhadap bobot berangkasan batang umur 6 MST dan kehadiran jumlah jenis gulma pahit (*Axonopus compressus*) umur 12 MST dan produksi biji kering pada kadar air 14%/petak serta laju tumbuh pertanaman 1 tertinggi.

Interaksi varietas srikandi kuning 1 tanah diolah sempurna (V_3P_1) lebih baik hasil terhadap total luas daun umur 6 MST dan lebih rendah bobot kering gulma jenis pahit (*Axonopus compressus*) umur 6 MST dan kehadiran jumlah jenis gulma emprak (*Boerreria latifolia*) umur 12 MST. Varietas srikandi kuning 1 ditanam pada jarak tanam 50x20 cm (V_3J_1) bobot kering gulma jenis pahitan (*Paspalum conjugatum*) lebih rendah umur 6 MST dan bobot kering gulma jenis emprak (*Boerreria latifolia*) umur 9 MST. Olah tanah sempurna dengan jarak tanam 90x20 cm (P_1J_3) diameter batangnya lebih besar umur 6 MST dan bobot kering gulma jenis pahitan *Paspalum conjugatum* lebih rendah umur 6 MST serta lebih sedikit kehadiran jenis jumlah gulma emprak *Boerreria latifolia* umur umur 12 MST.

Varietas lokal pulut tanahnya diolah sempurna dan ditanam pada jarak tanam 90x20 cm ($V_1P_1J_3$) lebih tinggi umur 3 MST dan total luas daun terluas dihasilkan ($V_3P_2J_1$) umur 6 MST serta bobot berangkasan daun tertinggi dihasilkan ($V_2P_2J_3$) umur 3 MST. Kehadiran jenis gulma borang *Mimosa invica* lebih sedikit jumlahnya ditemukan pada ($V_2P_1J_1$), ($V_2P_2J_3$) dan bobot keringnya lebih rendah ($V_2P_2J_3$) umur 12 MST serta kehadiran gulma berdaun lebar jenis emprak *Boerreria latifolia* lebih rendah umur 9 MST serta lebih rendah bobot kering gulma jenis *Sida acutta* umur 12 MST.

Kata Kunci : Varietas, jarak tanam dan pengolahan tanah

ABSTRACT

Irawaty Rosalyne, The Effect of Soil Tillage to the Weed diversity and abundance with the Growth and the production of the Corn in Different Plant Spacing, under B.S.J.Damanik's guidance as the chairman of the adviser commission and Hapsoh, as the adviser member .

This research was executed in BPP agriculture Medan, Selambo village, Amplas, Medan Denai. Kind of the soil is ultisol. The level of acidity is 5,16. This research lasted from February to June 2009, used split split plot design with three factors and each of them consist three levels. First factor is variety treatment which consist local pulut variety (V_1), Srikandi putih 1 (V_2), and srikandi kuning 1 (V_3). The second factor is soil tillage which consists maximum tillage (P_1), minimum tillage (P_2), and no tillage (P_3). The last one is plant spacing which consists 50x20 cm (J_1), 70x20 cm (J_2) dan 90x20 (J_3).

The result shows Srikandi kuning 1 variety (V_3) is the best result in plant height age 6, 9 weeks after planting, the biggest stalk diameter is age 3 WAP, the widest total leaf area is age 9 WAP, the weight of leaf brangkasan is and the production of dry seed is in the 14 percentages level of the water by the portion. The best soil tillage is maximum tillage (P_1) in plant height age 6, 9 WAP, the biggest stalk diameter age 3, 6 and 12 WAP), total leaf area age 9WAP, the weight of leaf brangkasan age 9, 12 WAP, the attendance of Paitan weed (*Paspalum conjugatum*) is less age 6 WAP, the sum of Pahit weed (*Axonopus compressus*) is age 12 WAP, and the lowest dry weight of weed age 3 WAP. The first and the second of accelerate growth relative is higher. The best plant spacing is 50x20 cm (J_1), the weight of stalk brangkasan age 6 WAP and the sum of attendance pahit weed (*Axonopus compressus*) age 12 WAP and the production of dry seed is in the 14 percentages level of the water by the portion and the highest accelerate growth relative is the first.

Interaction between Srikandi kuning 1 variety and maximum tillage is better in total leaf area age 6 WAP, and the dry weight of pahit weed (*Axonopus compressus*) is lower age 0.41 6WAP and the sum attendance of emprak weed (*Boerreria latifolia*) age 12 WAP. Srikandi Kuning 1 variety in 50x20 cm plant spacing (V_3J_1), the dry weight of pahitan weed (*Paspalum conjugatum*) is lower age 6 WAP and the dry weight of emprak weed (*Boerreria latifolia*) age (9 WAP. Maximum tillage with 90x20 cm plant spacing ($P_1 J_3$) the stalk diameter is bigger age 6 WAP and the dry weight of pahitan weed (*Paspalum conjugatum*) is lower age 6 WAP and the sum of attendance emprak weed (*Boerreria latifolia*) is less age 12 WAP.

Pulut local variety, maximum tillage and 90x20cm plant spacing ($V_1P_1J_3$) the plant height ($V_3P_2J_1$) age 3 WAP, and the widest of total leaf area age 6 WAP, and the highest weight of leaf brangkasan ($V_2P_2J_3$) is in 3 WAP. The attendance of borang weed *Mimosa invica* is less in ($V_2P_1J_1$), ($V_2P_2J_3$) and the dry weight is lower in ($V_2P_2J_3$) age 12 WAP and the attendance of wide weed emprak *Boerreria latifolia* is lower age 9 WAP with the dry weight of *Sida acutta* weed which is lower age 12 WAP.

Key words : Variety, Soil tillage, Plant spacing