

**Pengaruh Kombinasi Pupuk Organik dan Kimia terhadap Produksi  
dan Komposisi Kimia Daun dan Batang Jagung Manis  
(*Zea mays saccharata*)**

Siti Rosyidah  
97/115550/PT/03517  
2002

INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh kombinasi pupuk organik dan kimia terhadap produksi tongkol, produksi bahan kering (BK), produksi bahan organik (BO) dan komposisi kimia daun dan batang jagung manis. Penelitian dimulai bulan Januari sampai Juli 2000 di Kebun Pendidikan Penelitian dan Pengembangan Pertanian (KP4) Kalitirto dan di laboratorium Makanan ternak Fakultas Peternakan UGM. Enam petak lahan ukuran  $(2 \times 3) \text{m}^2$  ditanami jagung manis (*Zea mays saccharata*) dengan jarak tanam  $(75 \times 40) \text{cm}^2$  digunakan dalam penelitian ini, dan secara acak dibagi menjadi dua perlakuan dengan tiga replikasi. Pada perlakuan 1 digunakan pupuk kimia dengan dosis N-P-K sebanyak 138-36-56 kg/ha, sedangkan pada perlakuan 2 digunakan kombinasi pupuk organik dengan dosis 10 ton/ha dan pupuk kimia pada dosis N-P-K 138-36-56 kg/ha. Pupuk organik diberikan pada saat pengolahan tanah dengan cara disebar, pupuk kimia diberikan tiga kali dengan metode *side band placement* pada hari ke-1, 20 dan 45 dari masa tanam. Pemanenan dilakukan pada hari ke-72. Rata-rata produksi tongkol, produksi BK, produksi BO, dan komposisi kimia daun dan batang ditentukan dengan uji t-test. Hasil penelitian menunjukkan bahwa produksi tongkol (5566,67 kg/ha vs 7000 kg/ha) berbeda nyata ( $P < 0,05$ ), produksi BK, produksi BO daun dan batang tidak berbeda nyata ( $P > 0,05$ ). Kadar air, EE, SK, abu, dan ETN daun tidak berbeda nyata ( $P > 0,05$ ), tetapi kadar PK daun (10,58 % vs 12,52 %) berbeda sangat nyata ( $P < 0,01$ ). Komposisi kimia bagian batang tidak berbeda nyata ( $P > 0,05$ ). Penelitian ini menunjukkan bahwa pemupukan dengan kombinasi pupuk organik dan kimia memberi hasil lebih baik, terutama pada produksi tongkol dan kadar PK daun.

(Kata kunci : Pupuk kimia, Pupuk organik, Produksi, Komposisi kimia, Jagung manis).

**The Effect Combination of Organic and Chemical Fertilizer  
on Production and Chemical Composition on Leaves and  
Stems of Sweet corn (*Zea mays saccharata*)**

Siti Rosyidah  
97/115550/PT/03517  
2002

ABSTRACT

The objective of this study was to determine combination effect of organic and chemical fertilizer on corn production, dry matter production, organic matter production and chemical composition on leaves and stems. The experiment was done from January to July 2000 at GMU Agriculture Training and Research Development (ATRD) Kalitirto, and at animal feed laboratory's Animal Science Faculty of GMU. Six compartment of land with size (2x3)m<sup>2</sup> were planted by sweet corn (*Zea mays saccharata*) on plant distance (40 x75) cm<sup>2</sup> used on this experiment, and divided randomly on two treatment and three replication. The first treatment used chemical fertilizer with N-P-K level 138-36-56 kg/ha, the 2<sup>nd</sup> treatment used combination of organic fertilizer at the rate of 10 ton/ha and chemical fertilizer with N-P-K level 138-36-56 kg/ha. Organic fertilizer given when soil was handling with spreading, and chemical fertilizer was given following side bland placement methode at day 1<sup>st</sup>, 20<sup>th</sup>, and 45<sup>th</sup>, from the planting. The plant was harvested at 72<sup>nd</sup>. The means of corn production, dry matter production, organic matter production and chemical composition were subjected to t-test analized. The result of this experiment showed that corn production (5566.67 kg/ha vs 7000 kg/ha) was significant (P<0.05), dry matter production and organic matter production on leaves and stems were not significant (P>0.05). Moisture, EE, CF, ash, and NFE on leaves were not significant (P>0.05), but CP was significant (P<0.05). All of chemical composition on stems were not significant (P>0.05). This experiment showed that combination effect of organic and chemical fertilizer made better, especially on corn production and CP of leaves.

(Key words : Chemical fertilizer, Organic fertilzer, Producton, Chemical composition, Sweet corn)