

INTISARI

Penelitian ini bertujuan untuk mendapatkan jenis dan imbangan takaran pupuk sintetik dan alami yang dapat memberikan pertumbuhan serta hasil paling baik bagi tanaman jagung manis (*Zea mays L. saccharata*). Penelitian dilaksanakan menggunakan metode percobaan faktor tunggal yang disusun dalam Rancangan Acak Lengkap. Perlakuan yang diujikan adalah imbangan takaran pupuk urea dengan 2 jenis pupuk alami yaitu pupuk kandang kotoran sapi dan tepung darah sapi yaitu sebagai berikut : 100% pupuk nitrogen sintetik (Urea), 75% urea + 25% pupuk kandang sapi, 50% urea + 50% pupuk kandang sapi, 25% urea + 75% pupuk kandang sapi, 100% Pupuk kandang sapi, 75% urea + 25% pupuk tepung darah sapi, 50% urea + 50% pupuk tepung darah sapi, 25% urea + 75% pupuk tepung darah sapi, 100% Pupuk tepung darah sapi, tanpa pupuk nitrogen (Kontrol). Masing-masing perlakuan diulang 3 kali dan setiap ulangan terdiri dari 3 tanaman sampel dan 2 tanaman korban. Variabel yang diamati yaitu tinggi, jumlah daun, bobot kering, luas daun, Indeks Luas Daun (ILD), Laju Pertumbuhan Tanaman (LPT), Laju Asimilasi Bersih (LAB), jumlah tongkol per tanaman, bobot jagung manis berklobot dan bobot jagung manis tanpa klobot. Hasil penelitian menunjukkan bahwa pupuk N alami dari kotoran sapi yang dikombinasikan dengan urea memberikan pertumbuhan dan hasil yang lebih baik pada jagung manis dibandingkan dengan pupuk N alami dari darah sapi yang dikombinasikan dengan urea. Imbangan takaran 75% urea dan 25% kotoran sapi memberikan pertumbuhan dan hasil jagung manis yang paling baik.

Kata kunci : Jagung manis, Nitrogen, Pupuk sintetik, Pupuk alami, Imbangan

ABSTRACT

*The aim of this research was to obtain the type and the equilibrium of synthetic and natural N fertilizer dosage which can give the best growth and yield for sweet corn plant (*Zea mays L. saccharata*). The research was conducted using a single factor experimental method that arranged in Completely Randomized Design. The treatment was urea fertilizer dosage balance with 2 types of natural fertilizer cow manure and cow's blood which is as follows: 100% synthetic nitrogen fertilizer (Urea), 75% urea + 25% cow manure, 50% urea + 50% cow manure, 25% urea + 75% cow manure, 100% cow manure, 75% urea + 25% cow blood, 50% urea + 50% cow blood, 25% urea + 75% cow blood, 100% cow blood fertilizer, without nitrogen fertilizer (Control). Each treatment was repeated 3 times and each experimental unit consists of 3 sample plants and 2 victim plants. The observed variabel were height, number of leaves, dry weight, leaf area, leaf area index, crop growth rate (CGR), net assimilation rate (NAR), number of cob per plant, weight of sweet corn with the husk, and weight of sweet corn without the husk. The results showed that natural N fertilizer from cow manure combined with urea gave better growth and yield on sweet corn compared with natural N fertilizer from cow's blood combined with urea. A balance of 75% urea and 25% of cow manure gave the best growth and yield of sweet corn.*

Keywords: Sweet corn, Nitrogen, Synthetic fertilizer, Natural fertilizer, Equilibrium