

PENGARUH UMUR PANEN BERBEDA TERHADAP KARAKTERISTIK MORFOLOGI DAN PRODUKSI BIOMASSA FODDER JAGUNG (*Zea Mays L.*)

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh umur panen yang berbeda terhadap karakteristik morfologi dan produksi biomassa *fodder* jagung (*Zea mays L.*). Penelitian ini dilakukan selama 6 bulan di PT. Sembada Sinergi Indonesia, Selomartani, Sleman, Yogyakarta dan sampel *fodder* dianalisis di Laboratorium Hijauan Makanan Ternak dan Pastura, Fakultas Peternakan, Universitas Gadjah Mada, Yogyakarta. Biji jagung varietas Pioneer-35[®] ditanam pada nampan ukuran 50x25x5 cm sebanyak 500g/nampan. *Fodder* jagung dipanen pada umur panen 8, 10 dan 12 hari setelah tanam (hst) dan setiap level perlakuan umur panen diulang sebanyak 3 kali sehingga ada 9 nampan. Variabel yang diukur adalah morfologi dan produksi biomassa tanaman *fodder*. Morfologi tanaman meliputi tinggi tanaman, panjang akar dan jumlah daun, sedangkan produksi biomassa meliputi produksi segar, bahan kering, bahan organik. Data yang diperoleh dianalisis menggunakan analisis variansi dengan mengikuti rancangan acak lengkap (RAL) pola searah. Hasil penelitian menunjukkan bahwa *fodder* dengan umur panen 12 hari memiliki tinggi tanaman, panjang akar, jumlah daun, produksi bahan kering dan bahan organik lebih tinggi ($P < 0,05$) dibandingkan umur panen 10 dan 8 hari. Namun pada produksi segar *fodder* jagung umur panen 12 hari menunjukkan perbedaan tidak nyata ($P > 0,05$) dibandingkan umur panen 10 hari dan umur panen 10 hari berbeda nyata ($P < 0,05$) dibandingkan umur panen 8 hari. Produksi bahan kering *fodder* jagung masing-masing 3,45 kg, 3,99 kg dan 4,68 kg/m² meningkat ($P < 0,05$) sesuai umur panen 8, 10 dan 12. Berdasarkan hasil penelitian dapat disimpulkan bahwa semakin lama umur panen dapat meningkatkan morfologi dan produksi biomassa *fodder* jagung semakin tinggi.

Kata kunci: *Fodder* jagung, Umur panen, Morfologi tanaman, Produksi biomassa, Hidroponik

THE EFFECT OF DIFFERENT HARVEST AGE ON MORPHOLOGICAL CHARACTERISTICS AND BIOMASS PRODUCTION OF CORN FODDER (*Zea Mays L.*)

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ABSTRACT

This research aims to determine the effect of different harvest ages on the morphological characteristics and biomass production of corn fodder (*Zea mays L.*). This research was conducted for 6 months at PT. Sembada Sinergi Indonesia, Selomartani, Sleman, Yogyakarta and fodder samples will be analyzed at the Forage and Pasture Laboratory, Faculty of Animal Husbandry, Gadjah Mada University, Yogyakarta. Corn seeds of the Pioneer-35[®] variety are planted in trays measuring 50x25x5 cm at 500g/tray. Corn fodder was harvested at harvest age 8, 10 and 12 days after planting (DAT) and each level of harvest age treatment was repeated 3 times so that there were 9 trays. The variables measured were the morphology and biomass production of fodder plants. Plant morphology includes plant height, root length and number of leaves, while biomass production includes fresh production, dry matter, organic matter. The data obtained were analyzed using unidirectional completely randomized design (CRD) analysis of variance. The results showed that fodder with a harvest age of 12 days had higher plant height, root length, number of leaves, dry matter and organic matter production ($P < 0.05$) than harvest ages of 10 and 8 days. However, in fresh corn fodder production, the harvest age of 12 days showed no significant difference ($P > 0.05$) compared to the harvest age of 10 days and the harvest age of 10 days was significantly different ($P < 0.05$) compared to the harvest age of 8 days. Corn fodder dry matter production was 3.45 kg, 3.99 kg and 4.68 kg/m² respectively, increasing ($P < 0.05$) according to harvest age of 8, 10 and 12. Based on the research results it can be concluded that the longer the Harvesting can improve the morphology and higher biomass production of corn fodder.

Keywords: Corn fodder, Harvest age, Plant morphology, Biomass production, Hidroponic