

MORFOLOGI, PRODUKSI BIOMASSA, DAN KANDUNGAN ASAM SIANIDA PADA BEBERAPA VARIETAS HIJAUAN KETELA POHON (*Manihot esculenta* Crantz)

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INTISARI

Penelitian ini bertujuan untuk mengetahui morfologi, produksi biomassa dan kandungan asam sianida beberapa varietas ketela pohon (*Manihot esculenta* Crantz) sebagai hijauan pakan ternak. Penelitian ini dilakukan di Kebun Tanaman Pakan Laboratorium Hijauan Makanan Ternak dan Pastura, Departemen Nutrisi dan Makanan Ternak, Fakultas Peternakan, Universitas Gadjah Mada. Perlakuan terdiri dari perbedaan varietas tanaman ketela pohon antara lain menas, ketan, mentega, karet, gajah, daun, dan lokal. Masing-masing perlakuan mendapatkan 4 kali pengulangan. Pemanenan biomassa tanaman ketela pohon dilakukan pada umur 60 hari setelah penyeragaman. Data yang diamati pada penelitian yaitu morfologi tanaman (jumlah daun, diameter batang, bentuk bagian tanaman, tinggi tanaman, warna daun, warna tangkai daun, panjang tangkai daun, berat daun, dan berat tangkai daun), produksi biomassa, kandungan bahan kering dan organik, serta kandungan asam sianida. Data morfologi, produksi biomassa, dan kandungan asam sianida dianalisis menggunakan analisis variansi mengikuti rancangan acak lengkap dilanjutkan dengan uji *Duncan's Multiple Range Test* (DMRT) jika terdapat perbedaan nyata pada perlakuan. Hasil penelitian menunjukkan bahwa perbedaan varietas (menas, ketan, mentega, karet, gajah, daun, lokal) tanaman ketela pohon menunjukkan perbedaan nyata ($P < 0,05$) terhadap morfologi (jumlah daun, diameter batang, bentuk bagian tanaman, tinggi tanaman, panjang tangkai daun, berat daun, dan berat tangkai daun), produksi biomassa (produksi segar, produksi bahan kering, dan produksi bahan organik), dan kandungan asam sianida. Berdasarkan penelitian dapat disimpulkan bahwa jumlah produksi berat daun dan berat tangkai daun pada tanaman ketela pohon paling tinggi terdapat pada varietas karet. Tanaman ketela pohon varietas karet memiliki produksi segar, produksi bahan kering, dan produksi bahan organik paling tinggi. Tanaman ketela pohon varietas daun memiliki kandungan asam sianida paling rendah sehingga dapat digunakan sebagai alternatif hijauan pakan ternak.

Kata kunci: *Manihot esculenta* Crantz, Produksi biomassa, Varietas, Asam sianida

MORPHOLOGY, BIOMASS PRODUCTION, AND CYANIDE ACID CONTENT OF SOME CASSAVA FORAGE VARIETIES (*Manihot esculenta* Crantz)

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ABSTRACT

This study aims to determine the morphology, biomass production and cyanide acid content of several varieties of cassava (*Manihot esculenta* Crantz) as animal feed forage. This research was conducted in the Feed Plant Garden of Forage and Pasture Laboratory, Department of Animal Nutrition and Food, Faculty of Animal Husbandry, Gadjah Mada University. The treatments consisted of different varieties of cassava plants including menas, sticky rice, butter, rubber, elephant, leaf, and local. Each treatment received 4 repetitions. Harvesting of cassava biomass was carried out at the age of 60 days after homogenization. Data observed in the study were plant morphology (number of leaves, stem diameter, shape of plant parts, plant height, leaf color, petiole color, petiole length, leaf weight, and petiole weight), biomass production, dry and organic matter content, and cyanide acid content. Data on morphology, biomass production, and cyanide acid content were analyzed using analysis of variance following a completely randomized design followed by Duncan's Multiple Range Test (DMRT) if there were significant differences in the treatments. The results showed that different varieties (menas, sticky rice, butter, rubber, elephant, leaf, local) of cassava plants showed significant differences ($P < 0.05$) on morphology (number of leaves, stem diameter, shape of plant parts, plant height, petiole length, leaf weight, and petiole weight), biomass production (fresh production, dry matter production, and organic matter production), and cyanide acid content. Based on the research, it can be concluded that the amount of production of leaf weight and petiole weight in cassava plants is highest in rubber varieties. Rubber varieties of cassava plants have the highest fresh production, dry matter production, and organic matter production. The leaf variety of cassava plants has the lowest cyanide acid content so that it can be used as a green alternative to animal feed.

Key words: *Manihot esculenta* Crantz, Biomass production, Variety, Cyanide acid.