

# PENGARUH PEMBERIAN LEVEL PUPUK MAJEMUK NPK TERHADAP PERTUMBUHAN, PRODUKTIVITAS DAN KOMPOSISI KIMIA TANAMAN CHICORY (*Cichorium intybus L.*)

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## INTISARI

Penelitian ini bertujuan untuk mendapatkan data tentang pengaruh level pemupukan NPK terhadap pertumbuhan, produksi biomassa dan kandungan kimia tanaman *Cichorium intybus L.* Penelitian dilakukan di Fakultas Peternakan Universitas Gadjah Mada. *Cichorium intybus L.* ditanam pada plot berukuran 1x1,5 m dengan cara disebar. Perlakuan yang dilakukan adalah dengan pemberian pupuk majemuk NPK 0 g/plot (P0); 4,5 g/plot (P1); dan 6 g/plot (P2) atau setara dengan 0 kg/ha, 30 kg/ha dan 40 kg/ha. Variabel yang diamati pada penelitian meliputi pertumbuhan vegetatif (tinggi dan panjang tanaman, panjang daun, lebar daun, dan jumlah daun), produksi biomasa hijauan (produksi segar, produksi bahan kering dan produksi bahan organik) serta komposisi kimia (bahan kering, bahan organik, protein kasar, serat kasar, lemak kasar). Rancangan yang digunakan adalah rancangan *Completely Randomized Design* (CRD) dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT) apabila menunjukkan hasil yang signifikan. Faktor utama yaitu level pupuk majemuk NPK (16%, 16%, 16%). Masing-masing perlakuan dilakukan 3 ulangan. Hasil penelitian menunjukkan bahwa pemupukan pada level 40 kg/ha memberikan perbedaan yang signifikan ( $P < 0,05$ ) terhadap morfologi tanaman, produksi biomassa dan kandungan kimia tanaman. Produksi tertinggi tanaman *Cichorium intybus* yaitu pada level pupuk 40 kg/ha dapat menghasilkan 1,93 ton/ha/tahun produksi segar, 0,25 ton/ha/tahun bahan kering, dan 0,20 ton/ha/tahun bahan organik.

Kata kunci: *Cichorium intybus*, Komposisi kimia, Level pupuk NPK, Pertumbuhan, Produksi.

# THE EFFECT OF NPK FERTILIZER LEVEL ON GROWTH, PRODUCTIVITY AND COMPOSITION CHEMICAL OF CHICORY (*Cichorium intybus* L)

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## ABSTRACT

This research was aimed to obtain data about the effect of NPK fertilization levels on growth, biomass production and chemical content of *Cichorium intybus*. The study was carried out at the farm facility of Faculty of Animal Science Universitas Gadjah Mada. *Cichorium intybus* was planted in a plot measuring 1x1.5 m by being spread seeds. The treatment was done by applying fertilizer levels of 0 g/plot (P0); 4,5 g/plot (P1); and 6 g/plot (P2) or equivalent with 0 kg/ha, 30 kg/ha, 40 kg/ha. Variables observed in the study included vegetative growth (plant height and length, leaf length, leaf width and number of leaves), forage biomass production (fresh production, dry matter production and organic material production) and chemical composition (dry matter, organic matter, crude protein, crude fiber, crude fat). All data were evaluated by using one way analysis of *Completely Randomized Design* (CRD) among groups were then subjected to *Duncan's New Multiple Range Test* (DMRT). The main factor is NPK compound fertilizer level (16%,16%,16%). Each treatment carried out 3 replications The results showed that fertilization at the level of 40 kg/ha provided significant alteration ( $P < 0.05$ ) on plant height, number of leaves, fresh production, dry matter production, organic matter production, organic matter, dry matter, crude fiber content and crude fat content. The highest production of *Cichorium intybus* was attained on 40 kg/ha fertilizer can produce 1,93 tons/ha/year of fresh production, 0,25 ton/ha/year of dry matter, and 0,20 ton/ha/year of organic matter.

Keywords : *Cichrorium intybus*, Chemical composition, Level of NPK fertilizer, Growth, Production.