

**PENGARUH PUPUK DAUN NITROGEN-UREA DAN ORGANIK CAIR
FERMENTASI TERHADAP PRODUKSI DAN KECERNAAN *IN VITRO*
RUMPUT RAJA PADA INTERVAL PEMOTONGAN 50 HARI**

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh pupuk nitrogen-urea dan pupuk organik cair fermentasi dengan merek Biofert-plus sebagai pupuk daun (*foliar application*) terhadap produksi dan kecernaan *in vitro* rumput Raja interval pemotongan 50 hari. Sebidang tanah berukuran 24 x 12 m² yang dibagi menjadi 15 petak tanaman rumput Raja yang masing-masing berukuran 3 x 2 m². Petak secara acak dibagi kedalam 5 macam perlakuan yaitu tanpa dipupuk sebagai kontrol, 2g N urea/liter, 2, 4, dan 6 ml/liter pupuk Biofert-plus menurut rancangan acak lengkap pola searah. Semua petak dipupuk dengan 10 ton/ha pupuk kandang (6 kg/petak), 200 kg N/ha/tahun (32,4g urea/petak), 150 kg P205/ha/tahun (98 g TSP/petak), dan 150 kg K20 /ha/tahun (75g KCl/petak). Setelah tanaman berumur 40 hari tanaman dipotong paksa, selanjutnya dilakukan perlakuan pemupukan dengan cara disemprotkan melalui daun pada waktu siang hari antara pukul 9.00-10.00 setiap 10 hari sekali. Hasil penelitian menunjukkan rata-rata produksi bahan kering yaitu 3,43, 3,01, 2,93, 3,12, dan 2,69 ton/ha/panen dan produksi bahan organik 2,91, 2,56, 2,48, 2,65, dan 2,26 ton/ha/panen berturut-turut untuk urea, Biofert-plus 2ml/liter, 4 ml/liter, 6 ml/liter dan tanpa pemupukan (kontrol) yang secara statistik menunjukkan perbedaan yang tidak nyata. Dari penelitian diatas dapat disimpulkan bahwa pemupukan lewat daun dengan urea (2g N/liter) dan Biofert-plus pada dosis 2, 4, 6ml/liter belum mampu meningkatkan produksi dan kecernaan *in vitro* bahan kering dan bahan organik.

Kata kunci : Rumput Raja, Pupuk Daun, Kecernaan *In Vitro*, Interval Pemotongan.

**THE EFFECT OF NITROGEN-UREA AND ORGANIC LIQUID
FERMENTED FERTILIZER AS FOLLIAR APPLICATION FERTILIZER
ON PRODUCTION AND IN VITRO DIGESTIBILITY OF KING GRASS
ON FIFTY DAYS CUTTING INTERVAL**

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ABSTRACT

The research was conducted to study the effect of nitrogen-urea fertilizer and organic liquid fertilizer by folliar application on production and *in vitro* digestibility of King grass on 50 days cutting interval. A 24x12m² of land was divided into 15 plots of 3x2m² planted with king grass. Plots were randomly divided into 5 treatments with 3 replications as completely randomized design. The treatments were 2g of N urea/liter, and 0 (as control), 2,4, and 6 ml/liter of Biofert-plus fertilizer. All plot was fertilized with 10 tons/ha of manure (6 kg/plot), 200 kg N/ha/year (32,4g urea/plot), 150 kg P205/ha/year (98g TSP/plot), and 150 kg K20/ha/year (75g KCl/plot). The plant was cut at 40-days as force cutting to synchronize of plant growth. Folliar application was done by spraying the fertilizer under the leave blade at 9:00-10:00 a.m. every 10 days. The results showed that DM production was 3,43, 3,01, 2,93, 3,12 and 2,69 tons/ha and OM production was 2,91, 2,56, 2,48, 2,65, and 2,26 tons/ha respectively for urea, Biofer-plus 2, 4, 6 ml/litre and control statistically were not significantly differen. It can be concluded that folliar application fertlizer of urea (2g N/litre) and Biofert-plus (2, 4, 6 ml/litre) have no effect on dry matter and organic matter production and *in vitro* digestibility of King grass on fifty days cutting interval.

Key words : King grass, Folliar application fertilizer,
In vitro digestibility, Cutting interval.