Effect of Chemical Fertilizers on Seed Yield of

Ruzi Grass (Brachiaria ruziensis)

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Abstract

Effect of chemical fertilizers (N-P-K) on seed yield of ruzi grass was conducted on Korat soil series at Chiang-Yern Animal Nutrition Station Mahasarakam province from June to November 1987. The experiment was laid out in randomized block design. There were seven chemical fertilizers treatments with four replication. The chemical fertilizers were no fertilizer, 32-0-0, 15-15-15, 16-20-0, 16-20-8, 16-16-8, 12-24-12, 12-24-12 plus 16-0-0. The chemical fertilizers (312.5 kg ha⁻¹) were applied at sowing date and after defoliation. Dry matter yield were investigated 70 days (August 18, 1987) after sowing and seed harvesting.

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(November 30, 1987) The seed was harvested by shaking seedhead every two days during 17 - 30 November 1987.

The chemical fertilizers had no effect on seed quality (germination 76 - 82%, purity 84 - 93%, viability 82 - 88%) but the effect was observed on seed yield. Maximum seed yield was 531 kg ha⁻¹ derived from the chemical fertilizer formula 16-20-0. Maximum pure live seed yield (356 kg/ha) obtained from chemical fertilizer formula 16-20-0 and 16-20-8.

Maximum dry matter, protein and phosphorus yield cutting at 70 days after sowing, were 11, 1.1, 0.02 to ha⁻¹ respectively. They were obtained from supplying 12-24-12. Cutting after seed harvesting were 9.6, 0.46 and 0.01 ton ha⁻¹ respectively by applying 16-20-0.