Annual Forage Yield from Mixed and Pure Pasture of Ruzi and Signal Grasses *

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Abstract

An experiment to determine annual forage yield from mixed and pure ruzi (Brachiaria ruziziensis) and signal (B. decumbens) pastures was conducted at Khon Kaen Animal Nutrition Research Centre, from 1991 to 1993. In the first year, there was no significant difference between annual forage yields from the three pastures. Forage yields of pure ruzi, pure signal and mixed pasture were 15.19, 15.63 and 13.94 ton DM/ha or 71.75, 63.56 and 64.56 ton/ha fresh weight. Pure ruzi pasture yielded the most forage (7.65 ton DM/ha) at the first cut, 60 days after planting, but gave the lowest yield during the dry season. Pure Signal pasture yielded a low 2.31 ton DM/ha at first cut, due to slow establishment. Following that it produced superior yields both in the dry and rainy season. Pure signal pasture thus exhibited significantly better (P < 0.05) annual forage yield (16.88 ton DM/ha) in the second year compared to both mixed and pure ruzi pasture yields (15.19 and 12.80 ton DM/ha respectively).

Total forage yield, over two years, from mixed pasture was higher than pure ruzi but lower than pure signal pasture (P < 0.05). Mixed pasture DM yield was 29.18 ton/ha, compared to the 32.52 and 28.00 ton/ha yielded from pure signal and pure ruzi pasture, respectively. Each pasture showed similar levels of protein, ash and fibre. Mixed pasture advantageously gave better annual distribution of forage yield, especially in the first year. It produced a higher yield than pure signal pasture at the first cut (60 day after planting) and yielded higher than pure ruzi pasture in the dry season.

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