

FARMER ATTITUDES TO AND YIELDS OF THREE TROPICAL GRASSES

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Milk production from tropical pastures declines in late autumn, in response to lower temperature and low rainfall (Cowan and Stobbs 1976). This experiment was conducted to compare 3 tropical grasses for production and quality parameters in autumn and to see if the results were similar to farmer perceptions of the performance of those grasses.

Sixty dairy farmers supplying Queensco Dairy Co-operative Qld were asked to rank 3 tropical grasses (Table 1), from most to least preferred for the autumn period. Pasture yield and quality in autumn were assessed in a plot trial at Gatton College. Grasses were sown in December 1990 in 3 by 1 m² plots in a randomised block design of 4 replicates. They were fertilised with urea at 300 kg N/ha.year. Plots were defoliated on 1 March 1991, fertilised and then sampled at 42-day intervals to June 12. Total and leaf dry matter yields were recorded and samples analysed for *in vitro* dry matter digestibility (IVDMD), leaf protein and neutral detergent fibre (NDF) on each occasion. The results from the farmer survey were analysed using a Chi-square test and pasture data by analysis of variance. Forty-six and 42% of farmers rated Rhodes grass and green panic similarly ($P > 0.05$) as their most preferred grasses. *Setaria* received first preference from only 12% of farmers ($P > 0.05$). Dry matter yields increased and leaf protein declined through autumn (Table 1). Green leaf yields for all grasses peaked in May and were lowest in June. IVDMD declined and NDF increased over the sampling period. Rhodes grass was superior to the other grasses in total yield and leaf yield throughout the experiment ($P > 0.05$) (Table 1). Leaf protein, IVDMD and NDF were similar for all grasses ($P > 0.05$). These data support farmer perceptions of higher productivity for Rhodes grass in autumn in this environment.

Table 1. Yield and quality of 3 tropical grasses in autumn 1991

Grass	Sample month	DM yield (kg/ha)	Leaf DM (kg/ha)	Leaf CP (%)	Leaf IVDMD (%)	Leaf NDF (%)
Setaria	April	3109	1267	19.5	69.7	55.0
(<i>Setaria sphacelata</i>	May	5655	1790	14.2	59.7	58.4
cv. Solander)	June	6111	1554	11.7	51.8	64.9
Green panic	April	3226	1552	18.2	66.7	55.8
(<i>Panicum maximum</i>	May	6222	1327	10.6	61.9	64.7
var. <i>trichoglume</i>)	June	5573	923	9.4	54.2	66.9
Rhodes grass	April	6287	3113	15.6	68.7	62.0
(<i>Chloris gayana</i>	May	10716	3905	13.5	61.4	62.8
cv. Callide)	June	12483	2083	11.1	53.5	65.3
l.s.d. ($P = 0.05$)		2390	1131	n.s.	n.s.	n.s.
n.s., not significant.						

COWAN, R. T. and STOBBS, T. H. (1976). *Aust. J. Exp. Agric. Anim. Husb.* **16**: 829.