HERBAGE QUALITY OF TWO YEAR-LONG GREEN NATIVE GRASSES

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Research in the New England area (Northern Tablelands) of New South Wales has demonstrated that some native grasses are year-long green, drought tolerant and responsive to changes in fertility and grazing pressure (Lodge et *al.* 1990).

The aim of this research was to compare the seasonal variation in quality of wallaby grass *(Danthonia pilosa)* and weeping *grass (Microlaena stipoides)* with perennial ryegrass *(Lolium perenne)* at Collector on the Southern Tablelands.

A paddock (sown in 1963) containing areas of these 3 grasses in close proximity was selected. These areas were grazed or mown off. After regrowth the green leaf of each grass was sampled by cutting tillers at ground level prior to stem elongation. Samples were analysed for crude protein (CP) and metabolisable energy (ME) was predicted from dry matter digestibility determined by the method of Oddy *et al.* (1983). Soil type was a yellow podsolic, pH 4.2, CEC 4.0 (cmol(+)/kg), Bray Number 1 test, phosphate 6 mg/kg. Annual rainfall for Collector is 700 mm per annum with a winter-spring dominance.

The results (Table 1) show that these 2 year-long green native grasses equalled ryegrass in quality throughout these 3 years, except during autumn when perennial ryegrass had a higher ME and sometimes higher CP.

Table 1. Metabolisable energy (ME) and crude protein content (CP) in perennial ryegrass (PRG), *Danthonia* (D) and *Microlaena* (M) in different seasons 1989–91

Season	Year	ME (MJ/kg DM)			CP (% DM)		
		PRG	D	M	PRG	D	M
Spring	1989	9.0	9.5	9.6	12.7	17.9	17.4
	1990	9.9	9.1	10.2	19.8	15.2	22.2
	1991	9.3	9.3	9.3	11.2	15.1	20.1
Summer	1989–90	8.7	9.3	8.8	19.4	17.8	15.9
	1990–91	9.5	8.7	8.8	15.2	16.8	14.8
Autumn	1990	10.7	8.9	9.7	23.3	17.7	20.2
	1991	10.8	9.5	9.9	20.4	20.7	18.8
Winter	1990	9.2	9.8	8.4	14.3	18.1	15.2
	1991	10.2	10.1	9.7	16.9	18.9	18.5

These 2 native grasses have shown to be of high quality, year-long green and tolerant of drought and acid soils. They are worthy of further comparative evaluation with introduced species when seed becomes available.

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