

LIFETIME WOOL 2. PASTURE GROWTH, UTILISATION AND EWE STOCKING RATES

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On-farm benchmarking analyses indicate that stocking rates and wool production per hectare are key drivers of farm profitability. The utilisation of pastures by sheep in southern Australia is typically only 25-35%, and economic analyses estimates that increasing pasture utilisation by less than 20% could double farm profit across a range of wool production systems (Great Southern MIDAS model; John Young per. comm). This paper report preliminary data on pasture growth rates (PGR), pasture utilisation (PU) and ewe stocking rates (SR) for pastures maintained at different levels of feed on offer (FOO) during the pasture growing season. The data are derived from the 'Lifetime Wool' project (Thompson and Oldham 2004; *these proceedings*).

The pastures-base at the VIC site typically consisted of 20-50% perennial ryegrass/phalaris with <20% subterranean clover, whereas the WA site was subterranean clover dominant (50-70%) with annual grasses and capeweed. FOO was assessed using the visual calibration method described by Thompson *et al.* (1994). FOO was maintained near target amounts by weekly adjustments to SR based on FOO assessments, anticipated PGR and estimates of pasture intake. PGR was measured 3-4 weekly in 1m x 1m exclosures (n = 5 to 10 per plot). PU, expressed as a percentage, was calculated from total pasture production (PGR x days) minus residual FOO at the end of spring/total pasture production x 100.

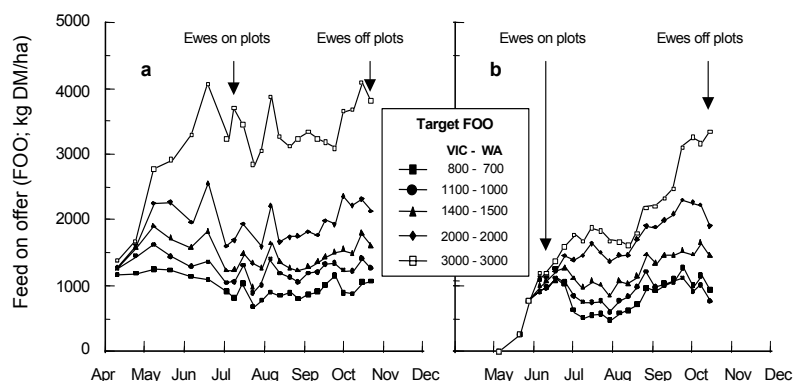


Figure 1. Feed on offer profiles for VIC (a) and WA (b) sites in 2001.

FOO was maintained at less than 1000 kg DM/ha (Table 1). As expected, SR and PU increased with decreasing target FOO treatment (Table 1). Throughout the experimental period, the short-term (weekly) SR ranged from 14-31 DSE/ha on the higher treatments, to 28-105 DSE/ha on the lowest target FOO treatments. This work will define further the potential for increased production and optimum grazing strategies for professional wool producers.

Table 1. Mean feed on offer (FOO, kg DM/ha), total dry matter production (kg DM/ha), pasture growing season stocking rate (DSE/ha) and pasture utilisation (%) at VIC and WA sites in 2001.

VIC					WA				
Target FOO	Actual FOO	Total DM production	Stocking rate	Pasture utilisation	Target FOO	Actual FOO	Total DM production	Stocking rate	Pasture utilisation
800	930	8480	44	88	700	850	6830	58	86
1100	1210	10180	39	88	1000	910	6550	48	88
1400	1410	10870	34	87	1500	1260	6330	33	77
2000	1930	11780	32	79	2000	1740	7510	27	75
3000	3460	11150	27	63	3000	2220	8910	19	62

THOMPSON,A.N., and OLDHAM,C.M. (2004). *Aust. Soc. Anim. Prod.* 25, (*these proceedings*).

THOMPSON,A.N., DOYLE,P.T. and GRIMM,M. (1994). *Aust. J. Agric. Res.* 45, 367-89.

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