

INTAKE OF HERBAGE AND INFECTIVE PARASITIC LARVAE
BY GOATS AND SHEEP GRAZING ANNUAL PASTURES

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On annual pastures, goats and sheep can complement each other when consuming green feed (Gurung et al 1987), but goats have been found to harbour more internal parasites than sheep (McGregor and Presidente 1985). In this study, intakes of herbage organic matter (OMI) and parasitic larvae were estimated, to give more information for the development of effective grazing management practices for goats.

Goats and-sheep grazed in either of two paddocks stocked at 7.5 animals/ha since 1981. Oesophageal fistulae (OF) were established in six one-year-old goats and six one-year-old sheep. Six adult Angora goats (mean liveweight 41 ± 1.9 kg) and six adult Merino sheep (mean liveweight 52 ± 1.5 kg) were used for total faecal collections. Following 14-day introduction periods, extrusa and faecal samples were collected during four days in February (dry summer pasture) and April (following pasture germination). Samples were bulked for each animal. The OF animals were used to collect ingested herbage for infective helminth larvae recovery using the sedimentation-flotation technique of Heath and Major (1968). Intake of infective larvae (I3/kg DM) was measured during two periods in autumn. Results are given in Table 1.

Table 1 Intake of organic matter and infective parasitic larvae by goats and sheep grazing annual pastures (\pm SE)

Season (dates)	OMI (g/hd/d)		Intake of infective larvae (I3+/kg DM)	
	Summer	Autumn	Autumn	
	(16-21/2/87)	(7-11/4/87)	(10/3-10/4/87)	(28/4-11/6/87)
Goats	$470^b \pm 38$	712 ± 50	$649^a \pm 74$	$1193^a \pm 243$
Sheep	$631^a \pm 56$	773 ± 49	$277^b \pm 26$	$749^b \pm 149$

Means in columns with different superscripts differ significantly

$P < 0.01$. t Infective third stage larvae.

OMI of sheep was greater than goats in summer but not in autumn. These results differ from those of Gurung et al (1987) where goats had a higher OMI than sheep, but seasonal conditions were different. Intakes of infective parasitic larvae were significantly higher in the goats and so irrespective of the goats susceptibility to parasite infection, they were subjected to significantly greater infective larval challenge. The reasons for goats ingesting more larvae are currently being investigated.

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