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**PASTURE MANAGEMENT TO MINIMISE
THE DETRIMENTAL EFFECTS
OF PRE-LAMB SHEARING**

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ABSTRACT

The purpose of this study was to examine whether the performance of pre-lamb shorn sheep is influenced by pasture allowance in the immediate post-shearing period and whether the relationship between performance and pasture allowance differed according to whether the ewes were shorn by standard comb (SC) or cover comb (CC). The trial was replicated across two years to allow for climatic variations that occurred between seasons which could markedly affect results. Fifty four ewes were used in each year in a 3x3x2 factorial design with three shearing treatments (ST) (SC, CC, and unshorn), three sward surface height (SSH) (nominal 3, 5, and 7 cm) and two pregnancy-status treatments (single and twin). There was an interaction between ST and SSH which resulted in liveweight gains during the period from pregnancy day 115 (P115) to P135 of 275, 613 and 4518 g; 1557, 2314 and 3997 g; and 3623, 2894 and 3997 g for SC, CC and unshorn (control) ewes set-stocked on 3, 5, and 7 cm SSH, respectively. There were no effects of ST or SSH on lamb weaning weight, ewe wool growth rate or mean fibre diameter. There was no interaction between ST and SSH for lamb birth weight (LBW), but the LBW of lambs born to SC ewes (4.9 ± 0.1 kg) was significantly heavier ($P < 0.05$) than those of lambs born to unshorn (control) ewes (4.3 ± 0.1 kg). Rectal temperatures of SC or CC ewes were significantly lower ($P < 0.05$) than those of unshorn (control) ewes on day 2 following shearing (S2), and on S4, S8, and S20. Pasture allowance, however, did not affect rectal temperatures of shorn ewes. Blood concentrations of glucose, NEFA or 3-OHB were not influenced by ST or SSH throughout the days of measurement. There were no effects of ST or SSH on ewe organic matter intake (OMI), except on the 2nd day following shearing where the OMI of ewes set-stocked on 3 cm (941 ± 147 g) were significantly lower than those ewes grazing 5 cm (1628 ± 101 g) or 7 cm (1349 ± 135 g) SSH pasture. The results suggested that hypothermia, as determined by rectal temperatures and induced by pre-lamb shearing, cannot be avoided by pasture management. Neither the use of a standard comb for pre-lamb shearing, nor a low pasture allowance (3 cm SSH) affected short- or long-term production parameters.

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LIST OF ABBREVIATIONS

°C	degree(s) celcius
°S	degree latitude South
µg	microgram(s)
µm	micrometre(s)
%	percentage
3-OHB	3 hydroxybutyrate
CC	cover comb
cm	centimetre(s)
Cr	Chromium
Cr ₂ O ₃	chromic oxide
CRC	Controlled Release Capsule
CTRL	control
d	day(s)
D	Digestibility
DM	Dry Matter
FO	Faecal Output
g	gram(s)
GT	Grazing Time
h	hour(s)
HFRO	Hill Farming Research Organisation
HM	Herbage Mass
I	Intake
IB	Intake (weight pasture eaten) per bite
kg	kilogram(s)
l	litre
L	day of lactation (e.g. L80=day 80 of lactation)
LBW	Lamb Birth Weight
LCT	Lower Critical Temperature

m	metre(s)
ME	Metabolisable Energy
meq	milliequivalent
MFD	Mean Fibre Diameter
min	minute(s)
mmol	millimol
MJ	megajoules
NEFA	non-esterified fatty acids
O ₂	Oxygen
OF	oesophageal fistulated
OM	Organic Matter
OMI	Organic Matter Intake
P	day of pregnancy (e.g. P115=day 115 of pregnancy)
RT	Rate of Biting
S	day of shearing (e.g. L-3=3 days prior to shearing)
SBCRU	Sheep and Beef Cattle Research Unit
SC	Standard Comb
s.e.	standard error
SSH	Sward Surface Height
WGR	Wool Growth Rate
WW	Weaning Weight