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

A thesis presented in partial fulfilment of
the requirements for the degree of
Master of Agricultural Science
at Massey University
New Zealand

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1996

Husain, M.H. 1996: Pasture Management to Minimize the Detrimental Effects of Pre-Lamb Shearing. MAgSc. Massey University, Palmerston North, New Zealand. 75pp.

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 OMIs 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.

ACKNOWLEDGEMENTS

This study programme was supervised by Dr. Stephen Morris and Professor Stuart McCutcheon. I express my deepest gratitude to them, for their expert supervision and enthusiastic support.

The excellent technical support from Mr Dean Burnham throughout this trial, and the skilled management of livestock by Ms Lynley Free are appreciated. The assistance of Miss Aderina Panggabean, Mr Cesar Pinares, Mr Chandana Herath, Miss Endang Tri Margawati, Mr Filipe Mesquita, Mr Geoff Purchas, Ms Jiai Chen, Mr John Williamson, Miss Kate Cooper, Mrs Kathy Morton, Ms Lorina Crombie, Miss Ning Shiny Widjaya, Miss Penny Back, Mr Reza Abduldjabar, Ms Sri Wigati, Mr Srinivasa Singi Reddy, Mr Udhik Mashudi, Miss Vitri Suhattanti and Miss Yvette Cottam in collecting field data under cold and windy weather conditions is gratefully acknowledged.

I would like to thank Ms Margaret Scott of the Physiology Laboratory for analyses of blood samples, Mr Joseph Bateson and Miss Maggy Zou of the Nutrition Laboratory for analyses of chromium and *in vitro* digestibilities, and Miss Kate Cooper of the Wool Laboratory who assisted in the wool analyses.

I gratefully acknowledge the Ministry of Culture and Education of Indonesia for giving me the opportunity to undertake this study, and the New Zealand Ministry of Foreign Affairs and Trade (MFAT) for providing a scholarship for this study. The New Zealand Wool Board provided financial support for the research programme.

The prayer and spiritual support from my parents (Sitti Djawiah Dg Nipati and Abdul Mani Husain), brothers (Memet and Yoyo) and sisters (Chichi and Hamsiah) were a significant influence in ensuring this study was completed. A one month visit to New Zealand by my mother in-law (Nur Hayati Thahir) during the field study which coincided with the birth of my son, Angga, was of tremendous help to enable me to manage this difficult period. I thank her very much.

I will never forget two of my best friends, Loise and Joseph Bateson, who always showed interest in my studies and introduced my family and me to lots of Kiwi culture.

I am particularly grateful to Yayasanku, my wife, for her patience, considerable encouragement, and loyal support during this study. Without her help this thesis would never have eventuated. Angga, my son, suffered through less contact with his father than would be normal during the last eight months. Therefore, this work is dedicated to Angga and his mother.

TABLE OF CONTENTS

ABSTRACT	i
ACKNOWLEDGMENTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	vi
LIST OF APPENDICES	viii
LIST OF ABBREVIATIONS	ix

CHAPTER I: INTRODUCTION

BACKGROUND	1
The Decline in Sheep Numbers	2
Lamb Mortality	3
Wool Quality	3
The Importance of Feeding Strategy during Pregnancy	4
THE ADVANTAGES OF PRE-LAMB SHEARING	5
Metabolisable Energy Utilisation and Cold Stress	5
Metabolic Adaptation	6
Increased Lamb Birth Weight	7
Lamb Survival	8
Lamb Growth	9
Wool Production of Lambs	10
Wool Production of Ewes	11
ISSUE TO BE CONSIDERED	13
WAYS TO MINIMIZE THE DETRIMENTAL EFFECTS OF SHEARING	15
FACTORS AFFECTING THE HERBAGE INTAKE OF GRAZING SHEEP	17
Facilitatory Stimuli	17

	iv
Cold Stress	18
Exercise	20
Pregnancy and Lactation	20
Inhibitory Stimuli	21
Pregnancy	21
Sward Factors	22
Environmental Factors	23
Management Factors	23
PURPOSE AND SCOPE OF STUDY	26

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

INTRODUCTION	28
MATERIALS AND METHODS	29
Experimental Design and Animals	29
Pasture Preparation and Measurement	30
Animal Measurements	32
Live Weight	32
Shearing and Fleece Depth	33
Blood Metabolites	33
Rectal Temperature	34
Herbage Intake	34
Wool Growth	36
Environmental Measurements	36
Statistical Analysis	37
RESULTS	38
Ewe Liveweight Gain, Lamb Production, and Wool Production	38
Rectal Temperature	40

	v
Blood Metabolite Concentrations	41
Organic Matter Intake	44
DISCUSSION	47
Long-Term Effects	48
Short-Term Effects	51
CONCLUSION	53
REFERENCES	55
APPENDICES	69

LIST OF TABLES

1. Actual sward surface height, herbage mass, botanical composition of the pasture on P116 in pastures of nominal SSH of 3, 5, and 7 cm. 32
2. Fleece depth (mm) left after shearing by standard and cover comb. 33
3. Effects of shearing treatment and sward surface height on ewe liveweight gain (g) during the period from shearing to twenty days post-shearing (P115-P135). 38
4. Effect of shearing treatment and sward surface height on lamb birth weights (LBW, kg), 80 day weaning weights (WW, kg), wool growth rates of ewes (WGR, $\mu\text{g}/\text{cm}^2/\text{day}$) and mean fibre diameter of ewe's wool (MFD, μm). 39
5. Effect of shearing treatment and sward surface height on rectal temperatures ($^{\circ}\text{C}$) on the days indicated post-shearing. 40
6. Effect of shearing treatment and sward surface height on plasma glucose concentrations (mmol/l) on the fourth day after shearing. 42
7. Effects of shearing treatment and sward surface height on plasma concentration of glucose (mmol/l) on the days indicated post-shearing. 42

8. Effects of shearing treatment and sward surface height on plasma concentrations of NEFA (meq/l) in pregnant ewes on the days indicated post-shearing. 43
9. Effects of shearing treatments and sward surface height on plasma concentrations of 3-OHB ($\mu\text{mol/l}$) on the days indicated post-shearing. 44
10. Effects of shearing treatment and sward surface height (cm) on organic matter intake (g OM/ewe per day) in pregnant ewes on the days indicated post-shearing. 45
11. Effects of shearing treatment and year on organic matter intake (g OM/ewe per day) on day 10 after shearing. 46

LIST OF APPENDICES

1. Measurement of chromium concentration 69
2. Technique to estimate botanical composition of diet samples collected from oesophageal fistulates (Clark and Hodgson 1986) 70
3. Procedures for washing wool samples and calculating clean wool growth rate. 71
4. The principle of the air flow technique for measurement of mean fibre diameter. 72
5. The mean and range of temperature, wind velocity, days with rain and days with ground frost during the experimental period (P115-P135). 74
6. The mean temperature, wind velocity, days with rain and days with ground frost in July and August in 1988-1995. 75

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