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# A STUDY OF METABOLIC DIFFERENCES BETWEEN FAT AND MEATY SOUTHDOWN SHEEP

A thesis presented in partial fulfillment
of the requirements for the degree of

Master of Agricultural Science
in Animal Science
at Massey University.

MARK LEVETT CARTER

1987

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#### LIST OF ABBREVIATIONS

ADG average daily gain ANOVA analysis of variance BMR basal metabolic rate BSA bovine serum albumin BW body weight cyclic adenosine monophosphate CAMP CV coefficient of variation dl decilitre DM drymatter DNA deoxyribonucleic acid е natural base of logarithms q gram glucose concentration at time t G(t) h h<sup>2</sup> hour heritability IGF-1 insulin-like growth factor-1 ΙU international unit ĸg glucose fractional decay constant kilogram LPL lipoprotein lipase milligram mg millimeter mm millimolar mM millilitre MANOVA multivariate analysis of variance MEI metabolizable energy intake megajoules metabolizable energy MJ ME MSA mulplicative stimulating activity NADPH nicotinamide adenine dinucleotide nq nanogram non suppressible insulin-like factors NSILA NEFA non-esterified fatty acids Ρ probability correlation coefficient r ribonucleic acid RNA SED standard error of the difference SEM standard error of the mean TЗ triiodothyronine T4 thyroxine pg picogram μg microgram μl microlitre

#### Levels of Statistical Significance

NS	Not significant	P>0.1
†	0.05< P < 0.1	
*	0.01< P <0.05	
**	0.001< P < 0.01	
***	P<0.001	