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A STUDY OF THE PHENOTYPIC EXPRESSION OF THE
LUSTRE GENE IN SHEEP AND A CHROMOSOMAL ANALYSIS
OF THIS ABNORMALITY

A thesis presented in partial fulfilment of the requirements for the degree
of Master of Science
in Genetics
at Massey University.

Karen Campbell
1991.

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ABSTRACT

Blood and skin samples were taken from sheep with both the lustre and normal phenotype for the study of chromosomal banding patterns, follicle density, and cell type distribution. The chromosomal analysis showed no significant difference in the banding pattern, when a comparison was made between normal and Lustre animals. There were however, significant differences in the follicle density analysis. All parameters measured (primary follicle density, secondary follicle density, S/P ratio, and total follicle density) showed statistically significant differences between normal and lustre animals ($P < 0.1$). There was also a significant difference in the distribution of the paracortical and orthocortical cells when comparing normal sheep to lustre. In addition to this, there was a significant difference found in proportions of the different types of cells, and the fibre area ($P < 0.01$).

TABLE OF CONTENTS

CHAPTER ONE	6
INTRODUCTION.....	6
CHAPTER TWO.....	10
LITERATURE REVIEW.....	10
2.1 Lustre Gene.....	10
2.2 Wool Growth and Structure.....	11
2.3 Fibre Structure	13
2.4 Image Analysis.....	15
2.5 Chromosomal analysis and banding techniques	16
CHAPTER THREE.....	20
MATERIALS AND METHODS.....	20
3.1 Study Animals.....	20
3.2 Chromosome Preparation.....	20
3.2.1 Materials.....	20
3.2.2 Method of Blood Collection, Preparation and Incubation.....	21
3.2.3. Chromosome harvesting	21
3.2.4. G-banding.....	22
3.2.5. Analysis.....	23
3.2.6. Fixative Preparation	23
3.2.7. Preparation of Sorenson's Buffer	24
3.2.8. Preparation of Giemsa Stain.....	24
3.3 Skin Sampling	24
3.3.1 Materials.....	24
3.3.2 Method of Skin Sampling.....	24
3.3.3 Preparation of Bouin's Fluid	25
3.3.4. Preparation of the Skin Samples	25
3.4 Staining Skin Sections For Follicle Density	27
3.4.1 Materials.....	27
3.4.2 Methods.....	27
3.5 Staining Skin Sections For Cell Type Analysis.....	28
3.5.1 Materials.....	28
3.5.2 Methods.....	28
3.5.3. Preparation of Eosin-Phloxine stain	29
3.5.4. Preparation of Polychrome Methylene Blue Stain.....	29
3.5.5. Preparation of Performic Acid.....	30
3.6. Image Analysis.....	30
3.7 Computer Analysis of Data	33
CHAPTER FOUR.....	34
RESULTS AND DISCUSSION	34
4.1 Chromosomal Analysis.....	34
4.2 Follicle Density Analysis	35
4.3 Cortical Cell Type Analysis	42
CHAPTER FIVE.....	52
CONCLUSIONS.....	52
APPENDIX I.....	53
Tables of Follicle Density.....	53
APPENDIX II	58

APPENDIX III.....	61
GLOSSARY.....	61
BIBLIOGRAPHY.....	66

LIST OF FIGURES

	Page
Fig 1.1 Lustre and Normal Sheep.	9
Fig 3.1 Image Analysis System.	32
Fig 4.1 Chromosome Banding Pattern of Ovis aries (Normal).	38
Fig 4.2 Chromosome Banding Pattern of Ovis aries (Lustre).	39
Fig 4.3 Follicle Density of Wool Fibres of Ovis aries (Normal).	40
Fig 4.4 Follicle Density of Wool Fibres of Ovis aries (Lustre).	41
Fig 4.5 Orthocortical and paracortical Stained Wool Fibres (Normal).	44
Fig 4.6 Orthocortical and Paracortical Stained Wool Fibres (Lustre).	45

LIST OF TABLES

Table 4.1 Summary of Means of P, S, and Total Follicle Densities and S/P Ratio, and Levels of Significance in Difference Between the Two Phenotypes	42
Table 4.2 Percentage Error of Algorithm in Measurements of Cortical Cell Type Parameters	47
Table 4.3 Comparison of Between Level Values for Lustre and Normal Animals With respect to Parameters of Interest.	51
Table 4.4 Comparison of the Values for Lustre and Normal Animals for Parameters of Interest	52