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**EFFECT OF WALKING EXTRA DISTANCES
ON THE PERFORMANCE OF GRAZING DAIRY COWS
IN EARLY LACTATION**

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ABSTRACT

Two groups, each of 13 Friesian cows in early lactation, were fed and managed identically throughout the experimental period of 4 weeks (13th September-10th October, 1993), except that the control group (CT) walked directly from the paddock to the milking shed and back to the paddock (average 1.5 km per day), whereas the walk group (WK) walked approximately 6 km more per day than the control group (total 7.5 km per day). During walking, all cows were moved at the average walking speed of 55 m/min. The aim of the study was to examine the effects of walking extra distances on the performance of grazing dairy cows in early lactation.

A common daily herbage allowance (30-40 kgDM/cow/day) was given to both groups grazed in the same paddock, on equal areas separated by an electric fence. Milk production and composition, somatic cell counts, liveweight and condition score, reproductive performance and grazing behaviour were measured and analysed.

Herbage intake was estimated directly using a rising plate pasture meter and indirectly using chromic oxide technique (slow release chromium capsules; CAPTEC NZ., Ltd). The average dry matter intakes, as assessed by the pasture meter, were similar for the CT and the WK group being 16.1 and 16.5 kgDM/cow/day, respectively.

Average daily yields of milk and milk solids for both groups were 25 litres/cow and 1.9 kg/cow, respectively. There were no significant differences in milk yields, milk composition, somatic cell counts (SCC), or changes in liveweight and condition score

between the two groups. However, the WK group did produce slightly less milk solids (by 2 to 3%), and had slightly higher SCC than the CT group. No adverse effects on reproductive performance of cows in the WK group were observed.

Although the WK group spent less time on the pasture by about 1.5 hour per day, there was no significant difference in time spent grazing (GT) between both groups. Nevertheless, the WK group spent significantly less time standing ($P < 0.001$) per day than the CT group, mainly because of less time spent standing/ruminating.

The results show that high producing dairy cows in early lactation can walk horizontally (only a small hill was involved), at a comfortable walking speed, up to 7.5 km per day with no significant effects on milk production provided that pasture allowance is not restricted.

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TABLE OF CONTENTS

TITLE PAGE	i
ABSTRACT	ii
ACKNOWLEDGEMENTS	iv
LIST OF TABLES	viii
CHAPTER 1 INTRODUCTION	1
CHAPTER 2 REVIEW OF LITERATURE	3
2.1 THE ENERGY COST OF WALKING	3
2.2 EFFECT OF EXERCISE ON VOLUNTARY FEED INTAKE	5
2.3 EFFECT OF EXERCISE ON RUMEN FERMENTATION AND DIGESTION	8
2.4 EFFECT OF EXERCISE ON BODY TEMPERATURE	10
2.5 EFFECT OF EXERCISE ON NUTRIENT REQUIREMENTS	11
2.5.1 Metabolism of Active Muscle	11
2.5.2 Fat and Carbohydrate	13
2.5.3 Protein	14
2.5.4 Minerals and Vitamins	15
2.6 EFFECT OF EXERCISE ON BODY WEIGHT	16
2.7 EFFECT OF EXERCISE ON LACTATIONAL PERFORMANCE	17
2.8 EFFECT OF EXERCISE ON REPRODUCTION	19
2.9 OBJECTIVE OF THE STUDY	20

CHAPTER 3 MATERIALS AND METHODS	21
3.1 CLIMATIC ENVIRONMENT	21
3.2 ANIMALS AND TREATMENTS	22
3.2.1 Pre-experimental Period	22
3.2.2 Experimental Period	22
3.3 MEASUREMENTS	25
3.3.1 Pasture Measurements	25
3.3.2 Animal Measurements	26
3.3.2.1 Voluntary Intake	26
3.3.2.2 Milk Production and Somatic Cell Counts	27
3.3.2.3 Liveweight and Body Condition Score	27
3.3.2.4 Grazing Behaviour	27
3.4 STATISTICAL ANALYSIS	29
CHAPTER 4 RESULTS	32
4.1 CHEMICAL ANALYSIS OF THE HERBAGE	32
4.2 HERBAGE INTAKE	33
4.3 ANIMAL PERFORMANCE	34
4.3.1 Yields of Milk, Milk fat, Milk Protein and Lactose	35
4.3.2 Milk Composition	37
4.3.3 Somatic Cell Counts	38
4.3.4 Liveweight and Body Condition Score	39

	vii
4.3.5 Reproductive Performance	40
4.4 GRAZING BEHAVIOUR	41
CHAPTER 5 DISCUSSION	42
5.1 EFFECT OF WALKING ON HERBAGE INTAKE	42
5.1.1 Herbage Mass and Herbage Allowance	42
5.1.2 Herbage Intake	43
5.2 EFFECT OF WALKING ON ANIMAL PERFORMANCE	47
5.2.1 Milk Production and Composition	47
5.2.2 Liveweight and Body Condition Score	52
5.2.3 Calculation for Energy Balance	53
5.2.4 Reproductive Performance	55
5.3 EFFECT OF WALKING ON SOMATIC CELL COUNTS	56
5.4 GRAZING BEHAVIOUR	57
5.5 ANIMAL HEALTH	57
CHAPTER 6 CONCLUSION	59
BIBLIOGRAPHY	61

LIST OF TABLES

Table 2.1	Published values for energy expenditure for walking in cattle	3
Table 3.1	Climatological data during the experimental period	21
Table 3.2	Data for the cows at the start of the experiment	23
Table 4.1	Data for chemical analyses of the herbage	32
Table 4.2	Mean values for herbage measurements, allowance and apparent intake (measured by the pasture meter)	33
Table 4.3	Mean values for daily yields of milk, milk fat, milk protein and lactose	36
Table 4.4	Mean values for the concentration of milk fat, milk protein and lactose	37
Table 4.5	Mean values for somatic cell counts	38
Table 4.6	Mean values for the final liveweight, final condition score, liveweight change and condition score change	39
Table 4.7	Data for some characteristics of reproductive performance	40
Table 4.8	Mean values for time spent in various activities of grazing behaviour	41
Table 5.1	Calculated energy balance for the two treatment groups	54