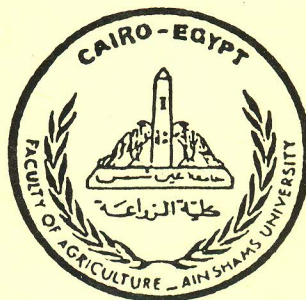


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THE FIRST CONFERENCE OF
THE AGRICULTURAL DEVELOPMENT RESEARCH



FACULTY OF AGRICULTURE
AIN SHAMS UNIVERSITY

CAIRO 19 — 21 DEC., 1987

FACTORS INFLUENCING THE WEIGHT OF CALF AND PLACENTA AT CALVING IN FRIESIAN COWS

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ABSTRACT

Data on 259 pure bred Friesian cows, collected from consecutive seasons, were used to examine the effects of season of calving, parity, weight of cow and sex on calf birth-weight and calf weight. The adjusted correlation coefficients between calf weight at birth and placental weight with weight of cow were detected.

No consistent pattern of parity effects on calf birth-weight was observed. Placental weight increased in a linear fashion ($P < 0.01$) from the 1st to the 4th parity and decreased thereafter. Birth weight and placental weight were heavier for male calves than for female calves; sex differences were found to be neither considerable nor significant. Calf birth-weight and placental weight increased significantly ($P < 0.01$) in a curvilinear fashion of year of calving during winter season. The heaviest weight of calf and placenta were obtained during spring and winter calvings while summer and autumn calvings were the lowest. Calf weight and placental weight increased linearly ($P < 0.01$) with the increase of weight of cow. The overall means of calf weight and placental weight (adjusted for other effects in model of analysis) were observed to increase, respectively by 0.029 and 0.003 kg for each kg increase in weight of cow at calving. Calf weight at birth was significantly positively correlated with placental weight.

INTRODUCTION

Birth weight is an economically important trait in dairy cattle. Birth weight of the calf has been shown to be the most important factor affecting calving difficulty (Bellows *et al.*, 1971). Weight of calf at

