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**A STUDY ON PRODUCTION AND REPRODUCTION
TRAITS OF FRIESIAN CATTLE IN EGYPT**

BY

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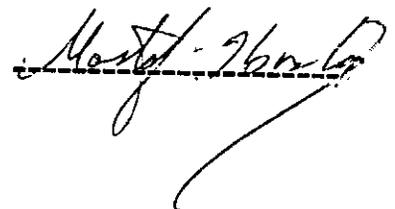
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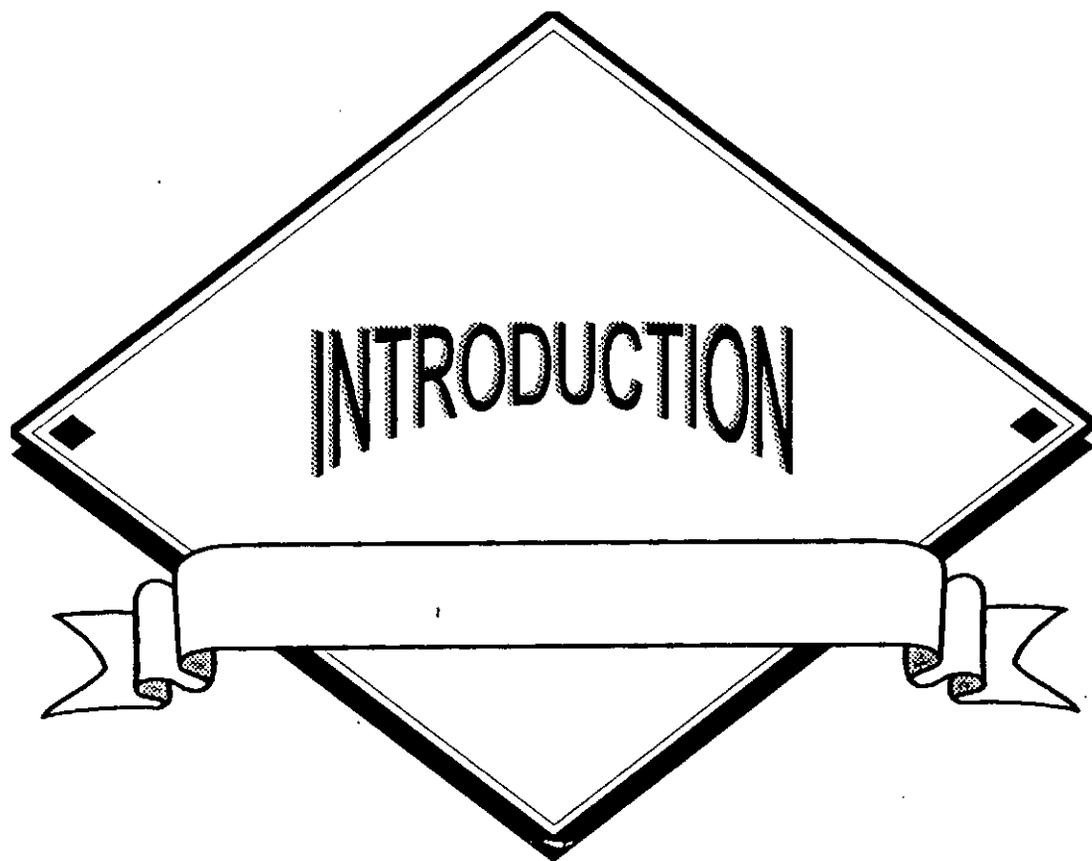
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INTRODUCTION

Milk production has played an important role in the development of human society. It is one of the most economical source of food energy and protein for human being. In addition, dairy cattle will continue to occupy an important position in the world's economy of food production.

Animal protein part in the Egyptian human diet is very small as compared to European, Canadian and American nations. Since animal protein nutrition is of great importance for human health and normal neural function, it is of vital importance to develop a national program for animal production improvement.

Egypt is deeply needed to improve the level of production and reproduction in the livestock. However, the introduction of large numbers of Friesian dairy cattle in Egypt. Aims at increasing the reproductive performance and milk yield. Dairy Friesian cow has defined itself to be the most adapted breed to the local conditions (Sidky, 1950 and El-Itriby and Asker, 1958).

Economic return of a dairy farm is dependent upon reproductive performance and milk production of dairy cows. Knowledge of the relationship between productive traits as total milk yield, 305-day milk yield, lactation period and dry period and several factors as season and year of calving and parity are important for effective control of the dairy production system.

Reproductive efficiency has an effect on profit derived from milk and must be considered if the goal is to improve total performance of the cow and to maximize economic performance of a herd. Studies on dairy

cow disposals indicated that from 16 to 30% of the cows are removed from the herd due to reproductive failure (Janson, 1980). Reduced reproductive efficiency results in increased age at first calving, calving interval and days open.

Heritabilities of different measures of fertility are low ranging from 0 to 0.1 (Maijala, 1966; Miller *et al.*, 1967 and Schaefer *et al.*, 1973). Investigations of the genetic relationship between milk production and measures for fertility have been few. In one case genetic correlations between calving interval and 305-day milk yield ranged from 0.43 to 0.65 (Miller *et al.*, 1967). Lower estimates of genetic correlations between 305-day milk yield and days open were 0.04 to 0.05 (Adkinson *et al.*, 1977).

The purposes of this study were to estimate: 1) Non genetic factors affecting productive traits i.e., total milk yield (TMY), 305-day milk yield (305-dMY), lactation period (LP) and dry period (DP) and reproductive traits i.e., days open (DO), Age at first calving (AFS) and calving interval (CI) and 2) Phenotypic and genetic parameters for the same traits studied.