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RESEARCH PAPER

Effect of non genetic factors on lactation milk yield and lactation length in interse progeny of HF x DEONI

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ABSTRACT

The data on 122 calvings from 58 interse progeny of Holstein Friesian (HF) and Deoni (D) breed for the period of 12 years were considered for the study. The data were collected from Cattle Cross Breeding Project (CCBP), Marathwada Agricultural University, Parbhani for non genetic factors like season of calving, parity and period of calving. The effect of season, parity and period on lactation milk yield (LMY) and lactation length (LL) were studied. The least square means (LSM) for LMY and LL were 1168.08±42.96 kg and 285.80±5.03 days, respectively. The effect of season of calving and parity on LMY and LL were non-significant whereas, period of calving has significant effect on LMY and LL.

Key words : Season, Parity, Period, Lactation milk yield and lactation length

Indian farming is characterized as a mixed system of farming and is based on dairy cattle, other livestock and crop production. Dairy cattle production plays an important role in national economy of our country.

Milk is the main component of dairy enterprise on which the economics of dairy business is dependant. It is called nearly a 'perfect food' as it contains all essential nutrients like water, protein, fat, carbohydrates and mineral matter needed for growth and maintenance of human body. The sources of milk for human consumption are cows, buffaloes, goat and sheep, but the main sources are cows and buffaloes.

The variation observed in the productive and reproductive traits is the basic phenomenon associated with any population. The variation observed in any population is due to genetic and non-genetic factors.

The productive traits of a dairy cows are influenced by inheritance received from their parents as well as the environment to which they were exposed during the lactation means non-genetic factors like season, parity and period.

The dairy cow is evaluated on the basis of the quantity and quality of milk produced. The laction milk yield and lactation length are economically important characters of a dairy cow.

The performance of F_1 halfbred (HF x D) progeny was studied so far. Hence, present study was carried out to see the effect of season of calving, parity and period of calving on LMY and LL in interse progeny of HF x Deoni crossbreds.

MATERIALS AND METHODS

The data of 122 calving from 58 interse halfbred cows HF x Deoni were collected from pedigree sheets and daily milk yield records for a period of 12 years (1990-2001). The data were collected from CCBP, MAU, Parbhani to study the effect of season of calving, parity and period of calving on production traits such as LMY & LL. The non genetic factors directly affect the economics of dairy farming. The data thus, obtained were classified according to season of calving, parity and period of calving.

Season of calving:

Division of year into three seasons based on climatic conditions of the area

Sr. No.	Months	Seasons
1.	February-May	Summer (S_1)
2.	June-September	Monsoon (S_2)
3.	October-January	Winter (S_3)

Parity:

The parity was divided into six class *viz.*, first (P_1), second (P_2), third (P_3), fourth (P_4), fifth (P_5) and sixth (P_6).

Period of calving:

The data generated over a period from 1990-2001 in all the 12 years were collected and divided into three groups of period, four years each.

– 1990-1993 - Pr-1