

NON-GENETIC FACTORS AFFECTING REPRODUCTIVE PERFORMANCE OF HOLSTEIN FRIESIAN COWS

By

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SUMMARY

Records of reproductive traits were collected from three dairy farms of AL-Maraie Company in the central region of Kingdom of Saudi Arabia during the period from 1991 to 1999. The data were recorded in two files; the first file consisted of 103776 records, each record included information about farm and animal identification, lactation number and reproductive traits like service number, calving interval, number of service per conception and age at first calving. The second file, included farm and cow identification, lactation number and birth date, calving date and dry off date.

Each file was sorted by lactation within cow number within farm number. According to calving date, cows were grouped into two seasons of calving: fall-winter season (S_1) for cows calved from October to March and summer-spring season (S_2) for cows calved from April to September. Milk records were divided into two milk production levels: level one (ML1) for cows with milk production ≤ 9500 liter, level two (ML2) for cows with milk production > 9500 liter.

The results revealed that:
Service number and number of service per conception have not affected significantly by lactation no, after first lactation. Cows calved in spring and summer needed more services to conceive than those calved in fall and winter. Year had a highly significant effect on both service number and number of service per conception.

AL-Maraie had a reasonable calving interval and had acceptable average of AFC.