Abstract:

The interactions between prolonged lactation periods and some productive and reproductive traits were investigated in thirty-two Friesian cows in Butana Dairy farm, Sudan. Age at first calving significantly (130.01) affected lactation length. Lactation lengths of 470.5 days were associated with the age group of 650-700 days, while longer lactation periods (501.2 days) were obtained at the age group of 700-750 days. Calving interval showed a non-significant correlation (r = 0.16) with lactation length. Parity number showed a significant effect (130.01) on lactation length and a positive correlation (r > 0.01) with it. The longest lactation (506.2 days) was obtained in the third parity and the shortest (472.3 days) in the fourth parity. The number of services per conception indicated a significant effect (130.01) on lactation length. The shortest lactation length (464.3 days) was recorded for the group which received more than eight services, while the longest (499.4 days) was recorded for the group that received 6-8 inseminations. A positive correlation (r = 0.620) between milk yield and lactation length was obtained. The average daily milk yields of 100 days, 305 days and more than 305 days were 21.3, 17.66 and 7.43 kg, respectively. Lactation curves revealed that parity one, two and four were about 16 months, and the third parity was 17 months. Mathematical calculation of persistency of the first, second, third and fourth parities were 1.508, 1.202, 1.291 and 1.223, respectively. However, persistency, based on lactation length was 1.289, 1.484, 1.648 and 1.009 from the shortest to the longest lactation lengths.