ABSTRACT

A study was conducted in the Sultanpur district to access the nutritional & reproductive status as well as to access the incidence of common reproductive problems prevalent in the cattle and buffaloes of this area. The livestock owners were divided into four categories viz. landless, marginal, small and large depending on their land holding capacity. Cross-sectional study, employing questionnaire survey, and regular follow up using some laboratory evaluation were employed in this study.

The body weight (Kg) of cattle was found to be 316.63 ± 1.339 and of buffaloes, it was 428.16 ± 0.884. The BCS of cattle and buffaloes were 3.86 ± 0.037 and 4.18 ± 0.078 respectively. The cattle and buffaloes were at par regarding their requirement of DM. The CP and TDN was deficit in all categories. The Mean and SEM of percent deficit of CP (Kg/d) in the cattle and buffaloes were -15.83 ± 1.519 and -17.39 ± 1.449 respectively. The Mean and SEM of percent deficit of TDN (Kg/d) in the cattle and buffaloes were -7.24 ± 0.703 and -7.95 ± 0.813 respectively.

The average daily milk yield (L/ day) in the cattle and buffaloes were 2.71 ± 0.031 and 3.71 ± 0.030 respectively. In cattle the average daily milk yield ranged from 1.52 to 4.84 L/d, whereas in buffaloes it ranged from 2.08 to 7.14 L/d. The peak milk yield (L/ day) in the cattle and buffaloes were 4.07 ± 0.043 and 6.40 ± 0.041 respectively. In cattle the peak milk yield ranged from 2.5 to 7.0 L/d, whereas in buffaloes it ranged from 4.5 to 11.0 L/d. The total (standard 305 days) milk yield (L/ lactation) in the cattle and buffaloes were 813.27 ± 8.601 & 1280.55 ± 8.125 respectively. The total milk yield in cattle ranged from 500 liters to 1400 liters, whereas in buffaloes it ranged from 900 to 2200 liters. The lactation length (days) in the cattle and buffaloes were 307.49 ± 0.951 and 352.06 ± 1.858 respectively. The lactation length in the cattle ranged from 250 to 365 days, whereas in buffaloes it ranged from 270 to 485 days. The dry period (days) in the cattle and buffaloes were 142.43 ± 7.032 and 121.98 ± 3.513 respectively. The dry period in the cattle ranged from 86 to 257 days, whereas in buffaloes it ranged from 61 to 188 days. The milk fat & SNF % of cattle milk were 4.03 ± 0.069 & 8.16 ± 0.076 respectively, whereas in buffalo’s milk, the fat & SNF % were 7.09 ± 0.082 & 9.31 ± 0.074 respectively.

The blood glucose levels in cattle and buffaloes were 52.14 ± 0.591 & 57.66 ± 0.949 respectively. The serum total protein (g/ dl) levels cattle and buffaloes were 7.04 ± 0.044 & 6.85 ± 0.058 respectively. The serum albumin
(g/dl) levels in cattle & buffaloes were 3.15 ± 0.050 & 3.08 ± 0.039 respectively. The A/G ratio in cattle & buffaloes were 0.82 ± 0.024 & 0.83 ± 0.019 respectively. The serum cholesterol levels cattle & buffaloes were 95.81 ± 0.896 & 95.27 ± 1.075 respectively. The serum calcium levels in cattle & buffaloes were 8.58 ± 0.067 & 9.42 ± 0.102 respectively. The serum phosphorus levels in cattle & buffaloes were 4.68 ± 0.055 & 5.15 ± 0.068 respectively. All the blood biochemical parameters were within normal range in both cattle & buffaloes except for Ca & P that were lower in both the species.

The AFC (months) in cattle & buffaloes were 51.98 ± 0.701 & 54.40 ± 0.681 respectively. The AFC in cattle ranged from 43 to 62 months, whereas in buffaloes it ranged from 47 to 63 months. The CI (days) in cattle & buffaloes were 448.20 ± 7.825 & 483.77 ± 8.574 respectively. The CI cattle ranged from 388 to 570 days, whereas in buffaloes it ranged from 392 to 590 days. The SP (days) in cattle & buffaloes were 176.96 ± 7.998 & 181.25 ± 8.387 respectively. The SP in cattle ranged from 118 to 290 days, whereas in buffaloes it ranged from 118 to 295 days. The NSC in cattle & buffaloes were 1.98 ± 0.154 & 2.45 ± 0.164 respectively. The NSC in the overall population of cattle & buffaloes ranged from 1 to 6.

A total of 37.98 % of cattle and 38.30 % of buffaloes were found to be suffering from various types of reproductive abnormalities in this area. Among all reproductive problems, incidence of anoestrus was maximum in both the cattle & buffaloes. It was present in 41.04 % of cattle and 43.33 % of buffaloes. Repeat breeding was found in 20.52 % in cattle and 23.89 % in buffaloes. Endometritis was present in 16.52 % cattle and 14.33 % buffaloes. Dystokia was present in 5.22 % cattle and in 4.45 % buffaloes. Abortions were present in 6.96 % cattle and in 5.60 % buffaloes. The retention of fetal membrane (RFM) was present in 7.13 % cattle and in 5.60 % buffaloes. Incidence of prolapse was found to be 1.74 % in cattle and in 1.82 % in buffaloes. Other reproductive problem like still birth was found to be present in 0.87 % of cattle and in 0.99 % of buffalo population.

Based on the above findings, it can be concluded that the animals in this area are in poor nutritional & lactational condition and the deficiency of various nutrients and Ca & P in the animals might be a cause for their poor production & reproduction performance as well as for various reproductive disorders.