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**LIST OF ABBREVIATIONS**

|  |  |
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| **ABBREVIATIONS** | **ELABORATIONS** |
| AI | Artificial Insemination |
| BCS | Body Condition Score |
| CCBDF | Central Cattle Breeding and Dairy Farm |
| CR | Conception Rate |
| CVASU | Chittagong Veterinary and Animal Sciences University |
| GDP | Gross Domestic Product |
| HF75% | Holstein Friesian |
| HYV | High Yielding Varity |
| LxFxF | LocalxFriesianxFriesian |
| SLxF | SahiwalxFriesian |
| SLxSL | Sahiwal xSahiwal |
| UVH | Upazilla Veterinary Hospital |

**STUDY ON FACTORS AFFETING CONCEPTION RATE OF DIFFERENT CROSS BREED DAIRY COWS AT DHAMRAI UPAZILLA, DHAKA**

**ABSTRACT**

A cross sectional survey was conducted among different medium size household dairy farm and Artificial insemination center at Dhamrai Upazilla,Dhaka to find out the factors affecting conception rate of different cross breed dairy cows .From September 2016 to August 2017, data was collected from record book as well as face to face interview with farmer through questionnaire about batch name of semen used for conducting AI in cows, parity number ,lactation status, BCS, service number and occurrence of different reproductive disorders of cows. Microscopic evaluation of semen (live/dead spermatozoa, normal/abnormal spermatozoa, concentration of spermatozoa) was done by frozen semen at the laboratory of Department of Genetics and Animal Breeding, CVASU. Among four categories bull semen(HF75%, LxFxF, SLxF, SLxSL) the mostly used semen is LxFxF (33.95%).Among four genotypic dairy cross breed cows(HF75%, LxFxF, SLxF, SLxSL) the highest conception rate(CR) was found in SLxSL (80%) at the 4th service whereas the lowest CR (15%) at the 1st service in HF75% cow. The highest CR (50%) at the 4th parity in SLxSL breed and the lowest CR (20%) at the 1st parity in HF75% breed. According to BCS of cow at the time of AI the highest CR(87.5%) in HF75% at BCS scale 4, but at BCS scale 6 conception rate is nil in all four genotypic breed. On the basis of daily milk production per cow, the highest CR (66.66%) was found in SLxSL breed at the level of 8 to 10 litre milk produce per day per cow. Among reproductive diseases (retain placenta, dystocia, abortion, mastitis), the retain placenta and dystocia, mastitis was least prevalent in the SLxSL breed cow at 1%, 2%, 14% respectively. From semen evaluation, although the percentage of live spermatozoa is lowest (85%) but the spermatozoa concentration is satisfactory (1300 million/ml) and the percentage of abnormal spermatozoa is lowest (20%) in SLxSL breed. From the study, it is concluded that conception rate of cow varies with breed, service number, parity, BCS, milk yield, semen quality.

**Key words**: Conception rate, Cross breed, Semen quality, Artificial insemination, Dairy cow.