

“Reproductive Performance of Gangatiri Cattle in Eastern UP”

Dr. Ram Pal Singh,*Dr. Deepak Kumar Verma ** Prof (Dr,) Sarvjeet
Herbert*** and Balvir Singh****

*Assistant Professor **SRF ***Professor ****Scientific officer (UPCAR-Lucknow U.P)
*, **, ***Department of Animal Husbandry and Dairying, Sam Higginbottom University of Agriculture,
Technology and Sciences, Allahabad
Corresponding Author-Dr. Deepak Kumar Verma

Abstract: A study was undertaken on performance of Gangatiri cows; the objective was to evaluate the reproductive performance of Gangatiri cattle in eastern UP at Department of Animal Husbandry and Dairying, SHUATS. The study areas were purposively selected based on the potentiality of Gangatiri cattle. A total of 20 cows were selected. A cross-sectional survey and structured questionnaire were also used for the study. The overall reported service period achieved at dairy farm were ranged from 57 to 125 days with an average period of 99.66 days and 92.03 percent service rate with 1.08 services per conception was calculated. The calving interval recorded were ranged from 12 to 20 months with an average calving interval of 15.1 months has been recorded that indicates a normal range for practical purposes of standard of 13 months calving interval period is taken as high level of fertility.

Key words: Gangatiri Cattle Breed, service period, service rate, services per conception, calving interval.

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I. Introduction

In India, there are about 40 breeds of cattle among this cattle breed Gangatiri is one of the important dual purpose breed of North India. Average daily milk yield of Gangatiri cow ranged between 4-6 liter per day. The lactation length is of 150-250 days. Inter calving period varies between 14-24 month. Coat color of Gangatiri cow is dull white. Muzzle is black, Hump and dewlap are medium. It is known to be originated in the region along the banks of Ganga River in Eastern Uttar Pradesh and Western parts of Bihar state. Gangatiri breed has been recognized as a separate breed by NBAGR-ICAR (Accession no. 03039)

II. Materials and Methods

Study area: This study was conducted at Improvement of Gangatiri cows of Department of Animal Husbandry and Dairying, faculty of Agriculture, SHUATS, Allahabad. Data on service period, service rate, services per conception, calving interval during three years from 2014 to 2017 were used for the present study. The average values for these parameters were recorded.

Management of animals: The management and feeding practices followed on cattle unit farm is uniform. Gangatiri are given ration according to the feeding schedule. At the time of morning and evening milking concentrates are allowed to each individual cow in accordance of their requirement for maintenance plus production. Dry roughages of wheat straw and the green as per availability (Green maize, Green Jowar and Berseem) are fed to them. Good housing facilities (Tail to Tail system) exist at the farm. Enough health cover is provided to protect the animals from epidemics and causal incidences of ill- health and eventualities.

III. Results and Discussion:

Service period (S P)

The service period achieved at dairy farm were ranged from 57 to 125 days with an average period of 99.66days which is within the normal range as reported in Haryana cattle (from 102 to 342 days) It is one of the important economic traits in dairy animals because it influences life time production of dairy cattle. It varies from animal to animal within the same breed. The service period ranges from 102 to 342 days, the longest period being that of Haryana cattle. The long service period in Indian cattle may also be due to late occurrence of post-partum oestrus on account of suckling by the dam before and after milking, poor feeding and management. The optimum service period reduces calving interval, which in turn generation interval and thus increases the genetic gain per unit of time (Jain *et al.* 1999). As a norm this period should be about 75 days for high level of fertility. Though very short service periods do not allow the animal to prepare completely to carry a fetus. Long service periods are not economical.

Service Rate: 92.03percent service rate was calculated.

Service per conception: Out of thirteen cows only one cow repeated and service was done twice. On the basis of this the service per conception was calculated and it was 1.08.

Inter calving Period (Month)

The calving interval recorded were ranged from 12 to 20 months with an average calving interval of 15.1 months has been recorded that indicates a normal range for practical purposes of standard of 13 months calving interval period is taken as high level of fertility. Theoretically, if a rest of two months after parturition is given for breeding the cows and gestation period of 281 days then approximately she should calve every 12 months but sometimes the cows do not conceive and therefore this standard is difficult to get as average for herd. For practical purposes of standard of 13 months calving interval period is taken as high level of fertility. Calving interval should not be more than 300 days if animal is to maintain good breeding efficiency. The optimum service period reduces calving interval and increases the genetic gain per unit time (Jain et al.1999). Therefore calving interval is an important economic trait because it is related to breeding efficiency of cows. It influences the number of lactations, the life time milk production, the number of calf crops in its life time. Herd management is largely responsible for length of calving interval as hereditary component is almost negligible (Bhasin, 1967).

Table-01: Highest, lowest and average values of service period, calving interval, service rate and service per conception in Gangatiri cows.

Parameter	Service Period (days)	Calving Interval (month)	Service Rate (%)	Service per conception
Highest Value	125	20	-	-
Lowest Value	57	12	-	-
Average Value	99.66	15.1	92.3	1.08

IV. Conclusion:

This study indicates that the performance of Gangatiri cows for service period, service rate, services per conception, calving interval are upto mark as per efficiency of the breed. Therefore, additional reproduction strategies like improving environmental factors and managemental factors are needed to improve the reproduction performance.

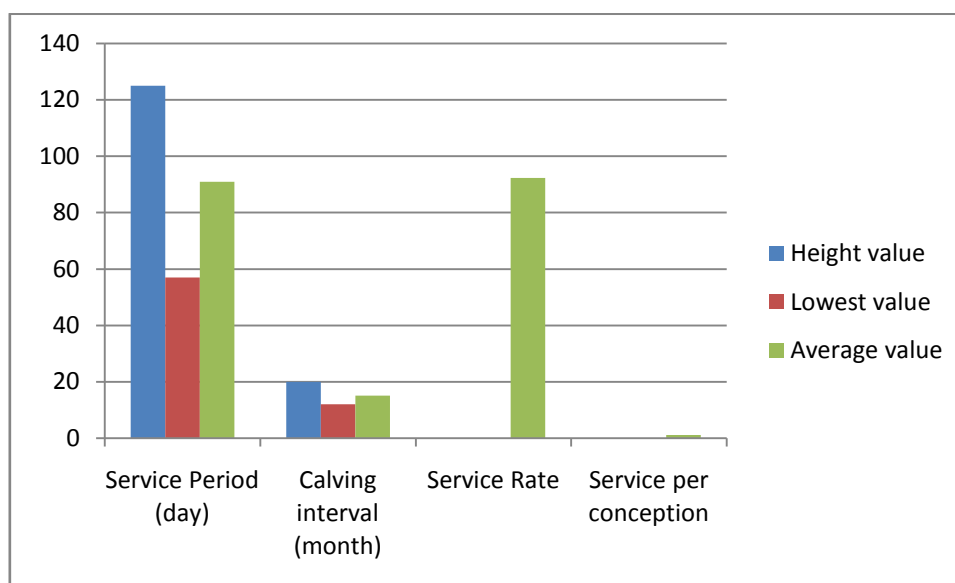


Fig-01- Highest, lowest and average values of service period, calving interval (month), service rate and service per conception in Gangatiri cows.

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