



## Production Performance of Kathani Cattle in Mul Tahsil of Chandrapur District

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### ABSTRACT

The study was undertaken to record the production performance of 50 Kathani cattle in Mul tahsil of Chandrapur district. The cows were mostly found with bowl shaped udder, cylindrical shaped teats and small size of milk vein. The lactational milk yield of Kathani cows was found to be  $658.26 \pm 4.95$  kg, average lactation period was of  $229.72 \pm 0.90$  days and average milk yield per day was  $2.862 \pm 0.025$  kg. The milk production performance of Kathani cattle is fair, hence, it can be considered as the draught breed of cattle and by adopting better management and nutrition practices its production can be increased.

### HIGHLIGHTS

- The milk production performance of Kathani cattle is fair.
- Its production can be increased by adopting better management and nutrition practices.

**Keywords:** Geography of district, Udder characteristics, Production performance, Kathani cattle

Livestock especially cattle are backbone of Indian agriculture as India is an agriculture country. India is the seventh largest country in the world and is a megabiodiversity centre. Over 70% of its population is engaged in occupations connected with agriculture and animal husbandry (Savalia *et al.*, 2019). There are about 50 recognized cattle breeds in the country, broadly classified into dairy, draft and dual-purpose breed depending upon their utility either in dairying or in agriculture work. In addition to 50 recognized breeds of cattle at National level, various other lesser-known cattle populations exist in India, which are not yet been properly documented and registered under non-descript in livestock census of government of India (Bhagat *et al.*, 2019). Presently lesser known Kathani cattle breed in eastern part of Vidarbha region of Maharashtra state is documented in old gazetteer of Chandrapur district as Telangpatti. This breed has not been included in the list of recognized cattle breeds of the country and considering their important role in livelihood of tribal community an attempt was made to phenotypically characterize the subpopulation, observation on socio- cultural importance,

body measurements and general management have been decided based on the studies of sample (Kulkarni *et al.*, 2013). Average production of non-descript cow is about 1.50 kg/day. Although milk production of non-descript cattle is low, it shows high adaptation in different agro-climatic condition in India. There is variation for selection and improvement for milk production. Efforts are made to improve production performance of non-descript cattle through cross breeding with exotic cattle.

### MATERIALS AND METHODS

#### Geography of the district

Mul is located at 20.09° North latitude and 79.67° East longitudes. It has an average elevation of 198 metres (649

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feet). The total area of Mul is 500 km<sup>2</sup> including 476.36 km<sup>2</sup> rural area and 23.15 km<sup>2</sup> urban area. The maximum and minimum temperatures are 44° C and 16° C throughout the year. The average rainfall of the tahsil is 1792 mm.

### Source of data

The data on the production performance of Kathani cattle was used for present investigation from four villages viz. Agdi, Janala, Kantapeth and Somnath of Mul tahsil of Chandrapur district of Maharashtra state. The information for the present study was collected from direct observation and cattle owners with the help of questionnaires.

### Collection of data

The data comprised of different observations (udder characteristic) and questionnaires designed relevant to the objectives of the study to collect the information from farmers.

### Statistical method

The data collected were properly arranged, grouped and analyzed by using least square method. Chi square test: Homogeneity for udder characteristics was tested by  $r \times c$  contingency as per Amble (1975).

## RESULTS AND DISCUSSION

### (a) Udder characteristics

#### Udder shape

The study stated that the bowl-shaped udder was found to be highest (74%) followed by round shaped udder (14%), trough shaped udder (6%) and pendulous shaped udder (8%) in Kathani cattle. Kulkarni *et al.* (2013) has observed bowl shaped udder (34.85%), round shape udder (27.87%), trough shape udder (28.22%) and pendulous shape udder (9.06%) respectively.

#### Teat shape

The observations on the teat shape were found to be cylindrical, funnel and pear. The study indicated the

percentage value of different shapes of teat among which the cylindrical shape of teats was found to be highest (70%), followed by funnel shaped teats (16%) and pear-shaped teat (14%) in Kathani cattle. The present findings are in agreement with Singh *et al.* (2015) who reported the cylindrical teat shaped (90.91%) in unexplored Sanchori cattle.

### Milk vein

The observations on the milk vein were found to be large, medium and small in size. Small milk vein was found to be highest (68%), medium was found to be (26%) and large were found to be (6%) in Kathani cattle. Chandran *et al.* (2014) who reported that the milk vein is not prominent in Bachaur cattle.

### (b) Production performance

#### Lactational milk yield

The study revealed that the range of lactational milk yield was in between 550-756 kg and the average lactational milk yield of adult female Kathani cattle was observed to be  $658.26 \pm 4.95$  kg. The lactational milk yield reported by Wagh *et al.* (2019) in Gaolao cattle was  $520.79 \pm 6.20$  kg.

#### Lactation period

Lactation milk yield is important trait for selection purpose. It is recorded that the lactation period ranges between 216-245 days and the average lactation period of adult female Kathani cattle was found to be  $229.72 \pm 0.90$  days. Similar results were found by Thalkar *et al.* (2016) who observed that the average lactation period in non-descript cattle was  $202.08 \pm 1.47$  days.

**Table 1:** Average values of Lactational Milk Yield, Lactation Period and Daily Milk Yield

Particulars	Lactational milk yield (Kg)	Lactation period (Days)	Milk yield per day (Kg)
Adult female	$658.26 \pm 4.95$	$229.72 \pm 0.90$	$2.862 \pm 0.025$
Kathani cattle	4.95	0.90	0.025

### Daily milk yield

It is found that the daily milk yield ranges between 2.44-3.50 kg and the average daily milk yield of Kathani cattle was  $2.862 \pm 0.025$  kg. Thalkar *et al.* (2016) observed that the daily milk yield in non-descript cattle of Raigad district was  $1.47 \pm 0.21$  kg.

### CONCLUSION

The milk production performance of Kathani cattle is fair, hence, it can be considered as the draught breed of cattle and by adopting better management and nutrition practices, its performance can be increased.

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