

## Weekly milk production trends in early lactation period of Nagpuri buffalo

M.G.Sahare, A.D.Sawaimul, S.Z.Ali, A.R.Sirothia and G.R.Bhojane

Department of Animal Genetic and Breeding  
Nagpur Veterinary College, M.A.F.S.U.Nagpur-440006(M.S).

### Abstract

Nagpuri breed of buffalo is recognized breed, mostly found in Central India particularly in Vidharbha region of Maharashtra. The early milk production record were collected for each buffalo from 1<sup>st</sup> week of lactation to 15<sup>th</sup> week of lactation. The weekly milk production of Nagpuri buffalo was found to be  $35.19 \pm 0.3$  kg with a range  $16.22 \pm 0.77$  to  $41.5 \pm 0.28$  kg. The overall variability found in early milk production was 12.16%. The variation in production in early lactation period between the animal up to the 15<sup>th</sup> week of lactation were non-significant.

**Keywords:** Early production trait, Milk production, Buffalo, Lactation.

### Introduction

The Nagpuri breed of buffalo is recognized breed, mostly found in Central India particularly in Vidharbha region of Maharashtra. The milk production trend is an important lactation parameter to assess the milkability of an individual cow or a herd which is governed by so many genetics and nongenetics factors. The milk production trend reported by Panicker (2002) as daily milk yield of  $3.88 \pm 0.85$  Kg with 39.91% C.V., whereas Shrikhande et al (1998) reported the average daily milk yield as 4.2 Kg in Nagpuri buffaloes. The information about milk production in early lactation is scanty. Therefore the present study is undertaken to know the weekly milk production trend in early lactation period of Nagpuri Buffaloes.

### Materials and methods

The data were collected from Cattle Breeding Farm, N.V.C.Nagpur. All recently purchased Nagpuri Buffaloes are kept under similar environment condition with a similar management practices. The recording of morning and evening milk yield were recorded and week wise milk yield were calculated for each buffalo from first week of lactation to fifteenth week of lactation. The data were analyzed by two way factorial unequal CRD.

### Results and Discussion

The weekly milk production of Nagpuri Buffalo was found to be  $35.19 \pm 0.03$  Kg (**Table-1**), with a 12.16 % coefficient of variation. The weekly milk production ranged between  $16.22 \pm 0.77$  to  $41.50 \pm 0.28$  Kg. However the average weekly milk production ranged

between  $35.19 \pm 0.89$  i.e. 5Kg per day. The coefficient of variation ranged between 2.32 to 22.59 %. Similarly weekly milk production in first and fifteen week of lactation ranged between  $16.72 \pm 3.14$  to  $38.99 \pm 1.04$  Kg. It was also observed that the weekly milk production were found to be low in first two week then it increase gradually up to 13<sup>th</sup> week of lactation than again start declining gradually (**Table: 2**). The present results are comparatively higher than the finding reported by Panicker (2002) and Shrikhande et al (1998). The analyses of variances of the variation in weekly milk yield due to individual weeks were calculated and found that the effect of individual buffaloes and weeks were non-significant in weekly milk production in Nagpuri Buffaloes (**Table: 3**). The non significant variation in weekly milk production suggested the uniformity with respect to milk production trend in Nagpuri Buffaloes up to 15<sup>th</sup> week of lactation. Similarly the non-significant effect of week on weekly milk production also indicated the uniformity of non-significant variation in weekly milk production in subsequent week suggested the persistency of weekly milk production in early lactation period in Nagpuri buffaloes.

### References

1. Panicker, V.C. (2000): The study on production performance of Nagpuri (Berari) buffaloes under field condition. M.V.Sc. Thesis submitted to M.A.F.S.U Nagpur.
2. Shrikhande, G.B., Kolte, A.Y. and Vhora, S.C. (1998): Studies on some production and reproduction of Nagpuri buffaloes. *Indian Veterinary Journal*, 75:608-609.

Weekly milk production trends in early lactation period of Nagpuri buffalo

3. Kaikini, A.S. and D.R.Pargaonkar (1969): Nagpuri Buffalo average lactation yield. *Indian Dairy Man.*21:47-48.

Table-1: Average weekly milk yield (Kg) in Nagpuri Buffaloes along with SD, SE and CV (%).

Animal	Mean	S.D.	S.E.	C.V.
A1	35.86	1.68	0.35	4.68
A2	41.50	1.34	0.28	3.23
A3	39.53	4.15	0.81	10.51
A4	38.65	3.02	0.59	7.83
A5	36.84	3.20	0.62	8.70
A6	36.46	4.65	0.99	12.76
A7	16.22	3.63	0.77	22.59
A8	34.85	3.00	0.58	8.60
Pooled	35.19	4.28	0.03	12.16

Table-2. Weekwise average weekly milk yield (Kg) in Nagpuri Buffaloes along with SD, SE and CV (%).

Week	Mean	S.D.	S.E.	C.V.
W1	16.72	6.33	3.16	37.90
W2	29.64	7.93	3.54	26.76
W3	33.88	8.16	3.33	24.09
W4	35.50	6.40	3.61	18.03
W5	36.62	5.75	2.03	15.66
W6	37.40	6.88	2.44	18.40
W7	37.43	12.20	4.32	32.58
W8	36.42	9.41	3.33	25.85
W9	36.27	17.54	6.19	48.29
W10	35.43	11.98	4.23	33.82
W11	35.13	12.24	4.32	34.83
W12	37.93	4.16	1.70	10.98
W13	38.06	2.54	1.04	6.69
W14	36.65	5.82	2.91	16.15
W15	37.10	5.98	3.35	16.12
Pooled	35.19	8.76	0.89	24.89

Table-3. Analysis of variance for the effect of week and animal of weekly milk yield (Kg) in Nagpuri Buffaloes.

Source	df	SS	MSS	F cal.
Week	14	875.09	62.50	0.07 <sup>NS</sup>
Animal	7	5787.35	826.76	1.01 <sup>NS</sup>
error	74	60268	814.43	

\*\*\*\*\*