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## **Feeding status of dairy animals in Sailu tehsil of Parbhani district**

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#### **Abstract**

The present investigation entitled “Feeding Status of Dairy Animals in Sailu Tehsil of Parbhani District” was undertaken to study the social status of farmer the idea behind the collection of data is to obtain the real social status of farmers. Livestock farming is generally predominated in villages, where majority (83 per cent) of population reside. The livestock farming is mainly owned by small, marginal farmers including landless labour which constitutes more than 45 per cent of the population. These farmers follow traditional methods of livestock rearing system based on socio-economic condition and availability of home grown feed resources.

**Keywords:** social status, economic status and traditional methods

#### **Introduction**

As per 19th Livestock census, 2012 India’s livestock sector is one of the largest in the world with a holding of 11.6 per cent of world livestock population which consists buffaloes (57.83per cent), cattle (15.06 per cent), sheep (7.14 per cent), goats (17.93 per cent), camel (2.18 per cent).India has huge livestock population of 512 million which mainly includes cattle, buffaloes, goats, sheep and pigs. The total livestock population in India has decreased by 3.33% over the previous census. With annual milk production of 132.4 million. India ranks first in the world and contributes about 16% to the world milk production (Anonymous, 2014).The per capita availability of milk in India has increased from 130g per day in 1950-51 to 299g per day in 2012-13 which is little above the recommendation of ICMR i.e. 285g per day. As per FSS Act (2006), the per capita availability of milk in the year 2015 -2016 in India is 337 g per day and in Maharashtra is 239 g per day (Anonymous, 2012). As a result of gradual transition from subsistence to market system, the economic dimensions of livestock keeping have assumed increasing significance in household behaviour. Livestock are now more valued as source of food and contribute over one-fourth to the agricultural gross domestic product and engage about 9% of the agricultural labour force. The livestock sector has been growing faster than crop sector, however, in recent years, the growth both in livestock production and productivity has decelerated considerably. Livestock farming is generally predominated in villages, where majority (83 per cent) of population reside. The livestock farming is mainly owned by small marginal farmers including landless labour which constitutes more than 45 per cent of the population. These farmers follow traditional methods of livestock rearing system based on socio-economic condition and availability of home grown feed resources. The present investigation has been conducted with following objectives:

1. To study the socio-economic status of dairy farmers
2. To study production and utilization status of milk by dairy farmers

#### **Materials and Methods**

##### **Selection of villages**

The data obtained for the study was collected by multistage random sampling technique. At first stage Sailu taluka was selected. At second stage, random selection of 10 villages were made with 20 dairy farmer in Sailu Tehsil

**Table 1:** List of selected villages from Sailu Tehsil of parbhani district

N = 200

Sr. No.	Name of Village	No. of Farmer
1.	Pimpalgaon-dhengli	20
2.	Zodgaon	20
3.	Nipani-Takli	20
4.	Rajewadi	20
5.	Kajali-Rohina	20
6.	Sonna	20
7.	Shelwadi	20
8.	Walangwadi	20
9.	Dugra	20
10.	Karadgaon	20

The 20 numbers of (cultivator) Dairy farmers were randomly selected from each village. Thus, the total sample size comprised of 200 farmers.

The collection of above information of each dairy farmers, a method of 'Personal Interview' through questionnaire was followed. For these questionnaire, a standard Performa of questionnaire as adopted by 'NBAGR' was prepared and taken for survey.

### Classification of farmers

Categorization of selected dairy farmer according to their age group, education level, land holding, Based on number of dairy animals kept by farmers, and Family size, Occupation, Ways of milk marketing etc.

## Results and Discussion

### Socio – economic status of dairy farmers

#### Age

**Table 2:** Frequencies showing categories of farmers according to age

Sr. No.	Age group	Frequency	Percentage (%)
1.	20-30	42	21
2.	31-40	64	32
3.	41-50	45	22.5
4.	51-60	34	17
5.	> 60	15	7.5
	Total	200	100

The maximum number of farmers were observed between the age group 31 to 40 years age with 32 percent and followed by the age groups 51 to 60, 41 to 50, 20 to 30, and above 60 with 17, 22.5, 21 and 7.5 per cent. The possible reasons for this

**Table 4:** Number of dairy animals kept per farmer according to size of land holding

No. of dairy animals	Categories					Total	Percent
	I	II	III	IV	V		
	Landless 0(ha.)	Marginal 0 -1(ha.)	Small 1-2(ha.)	Medium 2-5(ha.)	Large >5(ha.)		
1	4	27	26	21	6	84	42.00
2	4	24	22	20	7	77	38.50
3	0	3	6	0	3	12	6.00
4	1	2	3	3	1	10	5.00
5	0	2	2	1	0	5	2.50
>6	1	3	0	2	6	12	6.00
Total	10	61	59	47	23	200	100
	[5.00]	[30.5]	[29.5]	[23.5]	[11.5]		

(Figures in Parentheses showing the percentage of farmers in respective categories)

could be, the farmers between the age groups 31- 40 aged respondents are more eager, interested and enthusiastic to earn additional income from dairy management. The similar results were reported by Gangil and Dabas (2005) <sup>[6]</sup>, Mali and Ligade (2014) <sup>[8]</sup>.

However, those beyond this range were the helping hands to the family i.e. some are engaged in grazing their animals, while age one do watch the animals in absence of working persons. Present finding coincide with the finding of Thombre and pawar (1993) <sup>[13]</sup>.

### Level of education

This survey proves the way of the society where un-educated person is asked to look to the animals. Their management and feeding. This may be one of the reasons why our dairy farmers are not inclined to adopt recommended feeding practices so quickly as do by the literates.

**Table 3:** Education level of dairy farmers

Level of Education	Frequency	Percentage
Illiterate 0	29	14.5
Primary 1-4	37	18.5
Middle 4-7	63	31.5
Secondary 7-9	25	12.5
Higher secondary 10-12	41	20.5
Graduate 13-15	5	2.5
PG 16-17	0	0
Ph.D. >17	0	0
Grand total	200	100

From Table 3 information, perception is that the maximum farmers have taken middle 4-7 standard education. And very less quantity of farmers are taken graduate (2.5), PG education as compare to another class of education.

The farmers studied were grouped into different categories based on their education level. It was observed that maximum number of farmers were illiterate with 14.5 per cent followed by middle, higher secondary, primary and secondary with 31.00, 20.5, 18.5 and 12.50 per cent, the least number of farmers were graduate with 2.5 percent. The present finding was in conformity with Shinde *et al.* (1998) <sup>[10]</sup>.

### Size of land holding and size of herd

#### Number of dairy animals kept per farmer according to size of land holding

The data which regards the number of dairy animals in various land holding groups per farmer are presented in Table 4.

From the Table 4 it is seen that the distribution of farmers was 10.4, 40.00, 24.50, 16.00 and 9.00 per cent in I, II, III, IV and V categories namely landless, marginal, small, medium and large farmers. It was further observed that the category I are possessing less number of dairy animals compared to the remaining categories. Jadhav (1973) [7] and Baxi (1999) [3] observed similar trend of observation in Parbhani and Nagpur Tehsil. From the table it is revealed that maximum farmers are keeping two dairy animals per head with 35 per cent, followed by one, three, four, more than six and five with 20.00, 15.50, 11.50, 10.50, and 7.50 percent, respectively. The trend of result on relationship between size of land holding and animal kept revealed that the purpose of maintaining large number of buffaloes by the big farmers

might be an account of obtaining milk and farm yard manure. From the above table it is observed that maximum number of dairy farmers had 1-2 animals. The frequency decreased with increase in the number of milch animals. It is logically seen that dairy farmers of this area mostly possessed one or two milch animal. This may be due to the economic status which may not allow keeping large number of dairy animals. The findings observed in the study are similar to Sonwane *et al.* (2002) [12] reported that 60.00 per cent farmers had 1-2 animals, 22.50 per cent farmers had 3-4 animals, 12.00 per cent farmers had 5-6 animals and 5.50 per cent farmers had more than 6 animals.

### Distribution of dairy animals

**Table 5:** Distribution of respondents according to size of herd

Category of Dairy Animals	Buffaloes		Cows			
	Frequency	Percentage	Crossbreed	Percentage	Indigenous	Percentage (%)
1-2 Animals	26	52.00	11	37.93	124	91.17
2-4 Animals	12	24.00	9	31.03	10	7.35
4-6 Animals	9	18.00	7	24.13	2	1.47
>6 Animals	3	6.00	2	6.89	0	0

(Figures in parentheses showing the percentage of animals in respective categories)

Data in table 5 indicated that maximum number of dairy farmers had 1-2 animals of both types' buffaloes (52.00 per cent) and cows (91.00 per cent), 3-4 buffaloes with (24.00 per cent), 5-6 with 18.00 per cent and more than 6 animals with 6.00 per cent farmers. The figures for cows were 3-4 cows with 7.35 per cent, 5-6 cows with 1.47 per cent, and no one farmer have more than 6 cows.

It is logical seen that dairy farmers of this area mostly possessed one or two much animals. This may be due to the

economic status which may not allow most of the farmers (42 to 50 per cent) to keep large number of animals.

### Family size

Family status is depends on (number of family members). Family size, an important factor influencing labour availability for crop and livestock production.

In large families, the members have to work hard for earning more money incurring the family expenditure (Shinde *et al.*, 1998) [10].

**Table 6:** Distribution of farmers according to type of family

Type of family	Total no. of Members	Male	Female	Children
Single Member	2(0.19)	2(100)	-	-
Nuclear Family	725(71.78)	220(30.34)	223(30.75)	282(38.89)
Joint Family	283(28.01)	99(34.98)	90(31.80)	94(33.21)
Total	1010(100)	321(31.78)	313(30.99)	376(37.22)

(Figures in parenthesis shows percentage of number of family members)

From Table 6 It is seen that maximum numbers of families were in the type of nuclear family. It is revealed that in an average family size of 5.03 members, proportion of male is nearly 31.78 per cent while that of female and children is about 30.99 and 37.22 per cent, respectively. The table shows that maximum population is under nuclear family with 71.78 per cent followed by joint family and single member with

28.01 and 0.19 percent.

The present study is supported by the findings of Chatterji (1989) [4] who reported a family size in two villages as 6.4 and 5.9 respectively and also supported by Dhammu and Gill (2002) [5].

### Occupation

**Table 7:** Frequencies showing occupation status of dairy farmers

Occupation	Male	Female	Children	Frequency	Percentage (%)
Dairy	9	10	0	6	3
Dairy + Service	-	-	-	-	-
Dairy + Business	14	12	0	4	2
Dairy + Agriculture	235	223	2	150	75
Dairy + Poultry	-	-	-	-	-
Dairy + agriculture + Service	1	1	0	1	0.5
Dairy + agriculture + Business	80	67	0	39	19.5
Dairy + Poultry + agriculture	-	-	-	-	-

From table 7 it was revealed that maximum numbers (75.00 per cent) of dairy owners are engaged in agriculture. Therefore the dairy has become a subsidiary occupation of farm family. Only 3.0 per cent milk producers totally depend upon the dairy whereas 0 and 2.0 percent animal owners are engaged in service and business, some dairy farmers are also engaged in service and business (0.5 and 19.50 per cent) besides basic agriculture. These finding nearly same as to the

result reported by walthare *et al.* (1992)<sup>[15]</sup>.

### Production and utilization status

#### Milk Production and utilization Status

The status on the production and utilization of ilk by the rural families of the dairy farmers and cash income in the form of sale of milk has also been studied and compiled into mean performance.

**Table 8:** Status of milk production

Particulars	Buffalo	Cow	
		Crossbred	Indigenous
Mean lactation period (days)	295	275.06	265.09
Daily Milk Yield / Animal	8.8	10.23	2.21
Total Milk Production/Family/Day	13.3	29.8	3.53
Quantity of Milk Consumed(Home)/Day	2.13	2.24	1.61
Quantity of Milk Sold/Day	12.51	25.89	3.51

The results of Table 8 revealed that the average lactation period of 295 days was recorded for buffaloes and similarly, 275.06 and 265.09 days was recorded for crossbred and indigenous cows, respectively. The corresponding figures for mean total daily milk production per animal are 8.8, 10.23 and 2.21 kg milk was recorded for buffalo, crossbred and indigenous cows, respectively. The results on milk production were similar the findings of Sabale *et al.* 2018)<sup>[9]</sup> showed majority of cow i.e. 35.49 per cent were yielding 2.1 to 4 liters milk per day whereas majority of buffalo i.e. 32.23 per cent were yielding 4.1 to 6 liters milk per day.

The amounts of average milk production per family are recorded as consumed milk was 13.3, 29.8 and 3.53 kg of buffalo, crossbred and indigenous cow milk. The amount of home consumed milk was recorded as 2.13, 2.24 and 1.61 kg of buffalo, crossbred and indigenous cow milk. These findings supported by Tripathi (1994)<sup>[14]</sup> who revealed that the respondents retained less than 1 liter of milk (2%), 1-2 liters of milk (63%) and more than 2 liters (15%) for family consumption.

It is observed that buffalo have higher daily milk production, total milk production, milk consumption, and sale of milk than indigenous cow but crossbred animals have higher production and sale of milk than indigenous cows and buffaloes. The values obtained are higher than the values reported by Singh *et al.*, (1981)<sup>[11]</sup> for these parameters.

The amount of sold milk was 12.51, 25.89 and 3.51 kg of buffalo, crossbred and indigenous cow milk, respectively. The price of milk is observed as 50 and 40 rupees per kg of milk of buffalo and cow.

### Milk marketing

**Table 9:** Ways of milk marketing

Ways of Milk Marketing	Frequency	Percentage (%)
Milk Cooperative society	26	13
Regular Customer	96	48
consumer	48	24
private level processor	30	15
Total	200	100

The results of Table 9 reveal that the maximum dairy farmers sell the milk to the regular customers with 48 per cent; whereas 24.00, 15.00 and 13.00 per cent of farmers sell the milk to the daily consumers, private level processor and milk cooperative society respectively. The milk sold to the milk

cooperative society is very low because the cooperative society is located in the district head quarter which is quite away from the studied Tehsil.

The results observed is quite contradicting to the findings of Tripathi (1994)<sup>[14]</sup> whose reports showed that 80% of respondents sold their milk only to dairy co-operative society and 20% sold to neighbours.

### Means of milk transport

**Table 10:** Observed frequencies of means of milk transport

Means of Milk Transport	Frequency	Percentage
By Walk	32	16
On Cycle	41	20.5
On Motor Cycle	103	51.5
Through Vehicle	24	12
Total	200	100

From the Table 10, it is seen that maximum number of dairy farmers carry the milk by motor cycle 51.50 per cent from milking point to milk market and 20.50 per cent farmers carry milk on cycle and about 16.00 per cent farmers by walk. The vehicle used by few farmers i.e., 12 per cent, it is because there are only few farmers who are maintaining more milking animals for the purpose of income.

### Conclusion

1. In the study it is found that the quantity of feed fed is based on land holding. Landless farmers offered less feed as compared to large farmers.
2. It is also revealed that farmers offered feed to animals without any scientific standard of feeding the senior farm operators on average produce less milk production than young operators. So it is necessary to create awareness about dairy business.
3. Due to lack of knowledge about new livestock management practices, breeding practices, housing pattern farmers do not get profit in gross income of family.
4. Availability of grazing land helps to landless, marginal/small, medium and large farmer to decrease expensive stall feeding.
5. The female population was observed more than that of males.

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