



Literacy Level and Land Usage by Dairy Farmers in Eastern Part of Uttar Pradesh, India

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: <https://doi.org/10.9734/jsrr/2024/v30i102461>

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/123124>

Original Research Article

Received: 17/07/2024
Accepted: 20/09/2024
Published: 27/09/2024

ABSTRACT

The present study explores about literacy level and land usage by Dairy Farmers in Eastern Part of Uttar Pradesh, India. Uttar Pradesh has 1st rank of milk production in India and account for about 25.70 million tones or about 18% contribute in total milk production of India. Uttar Pradesh has 1st rank of milk production in India and account for about 25.70 million tones or about 18% contribute in total milk production of India. Almost all of this is produced by individual households containing of small, marginal farmers and landless group of families occupied in rearing of milch stock (1 to 3 cows/buffaloes per family) as a side business or main activity for their livelihood. 6.67 percent

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Cite as: Bachan, Shiv, R.K. Pal, and K.B. Anand. 2024. "Literacy Level and Land Usage by Dairy Farmers in Eastern Part of Uttar Pradesh, India". *Journal of Scientific Research and Reports* 30 (10):349-54. <https://doi.org/10.9734/jsrr/2024/v30i102461>.

increasing rate of milk production in the financial year 2019. The milk productivity per animal unit is very low compared to other major milk producing states of the country. Overall resumes indicate that the medium dairy owners, had land (7.15%) under fodder crops in urban areas in urban areas.

Keywords: Education; land use; dairy owners; animals.

1. INTRODUCTION

The livestock sector is not only a source of sustainable livelihood but is also an appropriate means of socio-economic growth. Uttar Pradesh has 1st rank of milk production in India and account for about 25.70 million tones or about 18% contribute in total milk production of India. Dairy development is the major sector which is still unorganized to a large extent. Amongst different livestock enterprises, dairying is one of the choice options among the farmers [1]. Uttar Pradesh has 1st rank of milk production in India and account for about 25.70 million tones or about 18% contribute in total milk production of India [2,3,4]. This zone has 24%of the total female bovine population which is highest than any other respective zone.52% dairy owners of medium category were illiterate in urban area, whereas large and small illiterate was87.00% and 83.00% respectively [5,6,7]. Table 1 indicate that medium dairy owners was the more literate and large dairy owners was most illiterate. Dairy owners of urban area and its overall land use system indicates that out of 94.71%, net area sown the 90.96% is under food crops production whereas of 3.81% is under covered by fodder crops [8,9,1,10].

2. MATERIALS AND METHODS

The study was carried out in Eastern Part of Uttar Pradesh which contributes for about 25% of dairy animal's population in the state. The zone comprises of Ambedkar Nagar, Azamgarh, Jaunpur, Varanasi, Ghazipur, Mau, Chandauli, and Balia districts. This zone is the second largest agro- climate of Uttar Pradesh presented with dairy farming production potential. This zone has 24%of the total female bovine population which is highest than any other respective zone. Hence Eastern Plain Zone (EPZ) was purposively selected for the study. EPZ comprises of those districts which fall under three administrative divisions, namely Ayodhya, Azamgarh and Varanasi. The Varanasi division of EPZ is large compare to other two divisions. Also, the population of total female bovines is more compared to other two divisions of the

zone. The Varanasi division of EPZ was again selected purposively for the brad study. The information from individual dairy producers was collected with respect to their family background, their land use pattern, profile of livestock herd, production of milk and productivity of milch animals [11,12]. A small emphasis on education dairy owner family was given to understand the ability of dairy owner for transfer of technology. It also contained data on general managemental and feeding practices being followed by an individual dairy owner.

3. RESULTS AND DISCUSSION

Educational status of dairy farmers is directly influenced to business activities. Data collected on this aspect has been presented in Table 1 and Table 1 Animal husbandry is closely related with agriculture and plays an important role in urban as well as rural economy and inculcating living standard of dairy producers. Fast urbanization has increased the demand of milk and milk product resulted livestock rearing as an important activity. The economical production of milk largely depends upon three major factors i.e., efficiency of an animal, its nutritional and managemental practices and its productivity. However, depends upon the adequate inputs in terms of quality feeds and management.

Let out that 52% dairy owners of medium category were illiterate in urban area, whereas large and small illiterate was87.00% and 83.00% respectively. Table 1 indicates that medium dairy owners were the more literate and large dairy owners were most illiterate.

Urban areas dairy owner literacy percentage was high to comparatively rural areas dairy owner. Out of total sampled dairy owners, only 24.67% was literate while 75.33.00% was illiterate. Among the 30.00% literate dairy owners of medium size was up to and over high school. Overall figure shows that only about 19.75% of total literate dairy owners and remains 80.28% are illiterate.

Table 1. Educational status of sampled dairy owners'

| Particulars | Illiterate | Percent | | Total Literate | Total Sampled Dairy Owner |
|--------------|------------------|-------------------|-------------------|-----------------|---------------------------|
| | | Literate | | | |
| | | Up to High School | Above High School | | |
| URBAN | | | | | |
| Small | 83.00 (13.28) | 13.00 (2.08) | 4.00 (0.64) | 17.00 (2.72) | 100.00 (16.00) |
| Medium | 52.00 (6.24) | 13.00 (1.56) | 35.00 (4.20) | 48.00 (5.76) | 100.00 (12.00) |
| Large | 87.00 (10.44) | 13.00 (1.56) | 0.00 (0.00) | 13.00 (1.56) | 100.00 (12.00) |
| Mean | 74.00 (9.98) | 13.00 (1.73) | 13.13 (1.61) | 26.00 (3.34) | 100.00 (13.33) |
| RURAL | | | | | |
| Small | 86.00 (13.76) | 6.00 (0.96) | 8.00 (1.28) | 14.00 (2.24) | 100.00 (16.00) |
| Medium | 70.00 (8.40) | 10.00 (1.20) | 20.00 (2.40) | 30.00 (3.60) | 100.00 (12.00) |
| Large | 70.00 (8.40) | 10.00 (1.20) | 20.00 (2.40) | 30.00 (3.60) | 100.00 (12.00) |
| Mean | 75.33 (10.11) | 8.66 (1.12) | 16.00 (2.02) | 24.67 (3.22) | 100.00 (13.33) |
| Overall | 80.25 | 10.83 | 10.00 | 19.75 | 100.00 |
| Mean | (10.80) | (0.48) | (1.13) | (2.51) | (13.33) |

Figures in parentheses are average number of dairy producers

Table 2. Land use pattern of sampled dairy owners

| particulars | Total holding | Land | Percent | | | |
|--------------|------------------|------------------|-----------------------|------------------|------------------|------------------|
| | | | Land use pattern | | Fodder under | |
| | | | Fallow and Waste land | Orchard | Net area sown | Food crops |
| URBAN | | | | | | |
| Small | 100.00 (6.68) | 2.85 (1.85) | 4.50 (0.31) | 92.67 (6.19) | 89.51 (5.99) | 3.15 (0.21) |
| Medium | 100.00 (4.66) | 0.00 (0.00) | 0.00 (0.00) | 100.00 (4.66) | 92.49 (4.31) | 7.51 (0.35) |
| Large | 100 (3.60) | 8.33 (0.30) | 0.00 (0.00) | 91.67 (3.30) | 91.67 (3.30) | 0.00 (0.00) |
| Mean | 100 | 3.28 | 2.01 | 94.71 | 90.96 | 3.75 |
| SE+ | (4.98) (0.45) | (0.16) (0.01) | (0.10) (0.00) | (4.72) (0.31) | (4.53) (0.38) | (0.19) (0.01) |
| RURAL | | | | | | |
| Small | 100 (10.66) | 4.03 (0.43) | 3.47 (0.37) | 92.50 (9.86) | 89.21 (9.51) | 3.28 (0.35) |
| Medium | 100 (8.81) | 11.46 (1.01) | 7.04 (0.62) | 81.61 (7.19) | 76.39 (6.73) | 5.22 (0.46) |
| Large | 100 (6.19) | 3.07 (0.19) | 3.39 (0.21) | 93.54 (5.79) | 87.88 (5.44) | 5.65 (0.35) |
| Mean | 100 | 6.35 | 4.68 | 89.01 | 84.49 | 4.52 |
| | (8.55) (0.68) | (0.54) (0.04) | (0.40) (0.01) | (7.61) (0.58) | (7.32) (0.08) | (0.39) (0.05) |
| Overall | 100 | 5.22 | 3.69 | 91.11 | 86.87 | 4.24 |
| Mean | (6.77) | (0.35) | (0.25) | (6.17) | (5.88) | (0.29) |
| SE+ | (0.57) | (0.02) | (0.01) | (0.44) | (0.22) | (0.03) |

Figures in parentheses are the area in acre along with SE

The correlation of education level with caste and size of family indicates that most literate of large dairy owner. In majority they relevant to backward caste and their family size are next but almost at par to medium dairy owners. The medium category dairy owners are much educated than others. The rural area dairy owners are less literate than urban area. Because the lower education level in village the average family size is more than urban. Anand, Usha [13] was recorded similar finding.

Pattern of land holding and its use are presented in Table 2. Land use pattern shown that 94.71 of net sown area were under food crops and remains 3.75% were under covered by fodder crops. The area under orchard scattered only 2.01%. The area is covered by orchard and fodder crops were less in urban area compared to rural area. Rural area had more fallow and waste land.

Further, the information is show in Table 2 indicates that urban dairy owners, although maintain dairy unit in the urban area but for fodder purpose they are mostly dependent on rural area.

Overall resumes indicate that the medium dairy owners, had land (7.15%) under fodder crops. But it is maximum percentage to other dairy owners such as small and large. A critical analysis of data putted in Table 2 also let out that the large dairy owners in urban area resembling to small and marginal farmers who have a less small holding in rural area that is why the major part (91.67) of their land is utilized under food crops production. Dairy owners of urban area and its overall land use system indicates that out of 94.71%, net area sown the 90.96% is under food crops production whereas of 3.81% is under covered by fodder crops. It indicates that mostly livestock depend on dry fodder and green fodder is purchased from feed market and other resources.

The study of Table 2 also indicates that land use system of dairy owners locates in rural areas have some part of their land use under fodder crops respectively of large, medium or small categories. The large, medium, and small dairy owners use land under fodder crops are 5.65%, 5.22% and 3.28% respectively. It means that the rural area dairy owners have better, and excess of green fodder as compared to urban area dairy owners. Mishra AK and Dwivedi PN. [14] was obtained similar finding.

4. CONCLUSION

Animal husbandry is closely related with agriculture and plays an important role in urban as well as rural economy and inculcating living standard of dairy producers. Fast urbanization has increased the demand of milk and milk product resulted livestock rearing as an important activity. The economical production of milk largely depends upon three major factors i.e., efficiency of better land use and educational status of dairy.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Hamadani H, Khan AA, Khan HM, Bandy MT, Mir MS, Reshi P, Sheikh IU, Wani SA. Socio-economic status of dairy farmers in the Srinagar district of Jammu and Kashmir. *Asian Journal of Dairy and Food Research*; 2023. Available: <https://doi.org/10.18805/ajdfdr. DR-2065>. 2023
2. Anonymous. Silver Jubilee souvenir. Res. Vol. II. Institute of Argil. Anand. Published by ICAR. 1996;2:214-218.
3. Ashmead AD. Proc. first Int. Ani. Nutri. Workers conference, for Asia and Pacific Bangalore. *Compendium*. 1991;122.
4. Bhalla GS. Globalization and agricultural policy in India. *Indian J. Agric. Eco.* Jan – March 1995;50(1).
5. Mudgal VD, Pradhan K. Proceedings of the consultation on non-conventional feed resources and fibrous agricultural residues held by IDRC-ICAR in March, 1988. HAU, Hissar, India. 1988;139-145.
6. Kumar D, Singh N. Information Access and Use Pattern of Dairy Farmers of Punjab. *International J. of Exten. Edu.* 2017;XIII:52:56.
7. Saleem Ashraf MI, Khan GA, Shahbaz B, Ashraf I. Performance evaluation of the dairy farmers

- regarding adoption of precise dairy farming practices in the Punjab, Pakistan. African Journal of Agricultural. 2013 Aug 1;8(29):4074-80.
8. Gupta BN. Dairy cattle feed resources and feeding practices in the north eastern states. National Dairy Research Institute, Karnal (ICAR); 1981.
 9. Indian Farmer's Digest. Farmers experimentation: ITK in agriculture and animal husbandry: Some cases. Indian Farmer's Digest. 1999;32(6):37.1-11.
 10. Vargas-Burgos JC, Heredia-RM, Torres Y, Puhl L, Heredia BN, Cayambe J, Hernández-González J, Torres A, Luna M, Toulkeridis T, Torres B. Livelihoods and perceptions of climate change among dairy farmers in the andes: implications for climate education. Sustainability. 2023 Sep 1;15(17):13157.
 11. Anonymous. Basic Animal Husbandry Statistics, Govt. of India, Ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries, Krishi Bhawan, New Delhi; 2010.
 12. AOAC. official methods of analysis, 17th end. Association of Official Analytical Chemists, Washington, DC; 2000.
 13. Anand, Usha. Transfer of technology at farmer's doorsteps. Yojna, 1998;42(11):13-14.
 14. Mishra AK, Dwivedi PN. Feed resource availability and traditional livestock production practices in Bundelkhand. In: Animal Report. IGFRI, Jhansi; 1995.

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