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To investigate the economic and social conditions of dairy cattle and buffalo farmers in the Sikrara block of Jaunpur, Uttar Pradesh

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Abstract
This experimental survey was conducted in five different villages located in the Sikrara block of the Jaunpur district in the Indian state of Uttar Pradesh. The focus of the survey was to collect data on the prevalent breeding practices in the region. Small farmers, medium farmers, and large farmers were polled for this study. The survey was done on a random basis so as to reduce error percentage and both marginal and big farmers were surveyed for the evenness of data. Survey was done on a door to door basis by providing a questionnaire to the respondents. The data of survey was the base of the analysis done to prove the hypothesis. The data collected was recorded, tabulated, charted and analyzed for significance. Middle-aged people made up the largest demographic (42.0%), followed by those who were either very young (29.33%) or very elderly (28.66%). Only 30.66% of the 150 respondents did not have any level of education, whereas 44.00% of the respondents did and 25.33& were well educated. Of the total of 150 respondents, 47.33% were farmers with a landholding of 3 to 6 hectares, 32.00% were farmers with a landholding of less than 3 hectares, and 20.66% were farmers with a landholding of 6 hectares or more. Only 18.75% of the farmers in the survey made less than Rs. 40,000 per year, while 56.25% made between Rs. 40,000 and Rs. 80,000, and 25.0% made more than Rs. 80,000. The largest proportion of respondents (53.75%) were from medium-sized families (6-9 people), followed by smaller households (up to 5.00%) and larger families (16.25%). Medium-sized herds were owned by 46.0% of respondents, followed by tiny (26.0%) and big (28.00%) herds. Animal husbandry was found to be the second most important business activity in the region after crop cultivation.

Keywords: Survey, respondents, data, livestock, landholding, income, herd size

Introduction
In terms of milk output, India is far and away number one. While the country's total milk output in 2018-2019 was 187.7 MT, this is lower than the average milk output in many other nations across the world. The cattle and buffaloes population of our country was reported to be 192.5 million and 109.9 million, respectively, which account 16 percent and 57 percent of the world population (State Animal Husbandry Department Census Report, 2019) [6], (Gupta 2022) The per capita availability of milk was 394g/day in the country (NDDB statistics).

The cattle and buffalo population in Uttar Pradesh state was 19.6 and 33 million respectively while in the study area (Jaunpur district) the respective population was 5.37 and 5.84 lacs (State Animal Husbandry Department Census Report, (2019) [6].

The major advantage of dairy farming is its minimum land dependency and resources flexibility, at the same time it is also characterized with risk and uncertainty (Kalaugher *et al.* 2013) [4]. There is no question that reducing risk and raising dairy farm production relies more heavily on the use of contemporary inputs and the use of new technology in animal husbandry methods. It has been observed that the feeding of adequate quantity of balanced ration alone can result in immediate increase of at least 80 to 90% in milk production of cattle and buffaloes (Vaintrub *et al.* 2021) [7].

The National commissions on Agriculture (1976) have already indicated a deficit of about 43.6 percent of concentrates, 11.1 percent of dry fodders and 37.5 percent of green fodders in the availability of conventional feeds for a large livestock population in the country. It has been further indicated that situation would greatly improve by 2000 A.D. (Dhali *et al.* 2016-17) [2] but marginal deficit will continue to exist even then.

The judicious use of our feeds and fodder resources has to be ensured to achieve maximum utilisation by increasing the efficiency of feed conversion within the existing limitation. In this respect the studies carried out at NDRI, Karnal are appearing. These studies have shown that the high yielding animals have greater conversion efficiency than the low yielders, although the feed input required by the former is much higher than the later (Benkler 2013) [1].

The low productivity of animals in Eastern U.P. is probably due to a combination of several factors like poor genetic potential, poor feeding and management and inadequate hygienic conditions due to water logging. Out of these factors, nutrition of animals plays a prominent role in up grading their production (Yilma *et al.* 2011) [8]. In India, the Centre and State Government have introduced various cattle and Buffalo improvement programmes like key village schemes, Intensive cattle development projects and cross breeding projects etc. but no attention feed has been made for the development of resources. It is true that an improved animal can express its full genetic potential only. Under adequate and balanced feeding conditions. Therefore, a systematic programme for the development of high quality feeds and fodder should form an integral part of animal improvement programmes in the Eastern U.P. as far as eastern U.P. is concerned, not single cattle improvement programme has been launched; therefore, the farmers of this area have least knowledge about the scientific rearing of animals. Secondly, people of this area are not so rich, uneducated having low standard and they cannot afford cross breed animals which are known for highest milk production. Eastern U.P. is specially known for its extremely poor animal performance primarily because of nutrient inadequacy. Paddy and wheat straws along with sugarcane top in winter season form bulk of the ration and also some grain by-products. Due attention has also not been paid for their proper utilisation by the animals.

Balanced feeding of animals is important to prevent under and over feeding of the animal. For this proper extension work is needed for efficient utilization of resources available with cattle owners and to check the over feeding in the period of excess availability of feeds so as to utilize the same during the period of shortage (under feeding period). More attention is needed to carry out proper research pertaining to scientific feeding of animals to increase their productivity (Salem and Smith 2008) [5].

Materials and Methods
This research was conducted in Jaunpur, an administrative district in eastern Uttar Pradesh. The district's northern boundary meets with the district of Azamgarh, while its southern boundary meets with the district of Sant Ravidas Nagar. Varanasi and Ghazipur districts are located on the eastern border, while Pratapgarh and Prayagraj districts make up the western border. One block, Sikrara, was chosen from a pool of twenty-one in the Jaunpur district.

Jaunpur district was purposively selected for the present study, because studies on evaluation of nutritional status of dairy cattle and buffaloes have not been carried out earlier in the district. The population of buffaloes and cattle were 5.84 and 5.37 lacs, respectively.

Sikrara is one of the 21 Blocks in the Jaunpur district, but it was chosen because it has the most cattle.

Based on the number of animals in each community, four were chosen. Table 1 details the communities that participated in the study.

Table 1: Village Selected

Name of block	Name of village
Sikrara	Harinath patti
	Bansafa
	Bhupatpatti
	Srirampur
	Shahpur

A list of the dairy farmers having dairying as their major/subsidiary occupation was collected from village dairy co-operative, village Pradhan. From each village respondents were selected falling under three categories *viz.* having 1-3 cattle and buffaloes, 4-6 cattle and buffaloes and more than 7 cattle and buffaloes.

In-depth interviews and conversations with relevant individuals were the primary means of gathering information for this study because of the credibility and reliability of the data they provide. The research goals informed the development of a standard interview schedule that was applied to all participants. Major and Minor Advisors, as well as College specialists from the Extension Education and Statistics Departments, are consulted for input and advice before the questionnaire and scheduling statements are finalized.

The interview schedule was prepared in such a way that the required information regarding the farmer and the information to arrive at the nutritional status of the dairy animals was obtained through various questions put across to the farmers. The interview schedule was divided into five major areas covering information regarding.

Collection of data
Researchers conducted in-depth interviews with residents of four different Jaunpur district villages to compile information for the research. The investigator made direct contact with local authorities such as Pradhan, Ward members, and the Dairy cooperative organization to solicit their assistance. Contact was made with the respondents through visits to their homes, dairy co-op societies, community centers, and farms. The researcher introduced himself and described the study's purpose before asking participants to fill out the questionnaire. Participants were assured that all information gathered would be kept strictly confidential and used exclusively for this study's intended purpose. After getting to know each participant, we asked them questions and wrote down their answers. Every effort was made to keep our impression of the responders neutral and positive. Milk production and fodder consumption were among the physical observations documented by actual weighing during the interviewer's 24-hour visit.

The nutrient requirement was calculated as per ICAR (1985) feeding standards for milch animals
Detailed information regarding the following was collected
1. The feeds and fodder actually being intake to the animals was recorded.
2. The milk production of the animal was recorded and the stage of lactation/pregnancy was given due weight age for calculating the actual feed requirement of the animal.
3. A detailed questionnaire was filled up from the responses of the farmers regarding their knowledge of the recommended feeding practice and to what extent it was being actually adopted by them.

Analysis of data and statistical tests applied
Percentage
To calculate a percentage, divide the value by 100 and write the resulting fraction as a percentage.

$$P = \frac{X}{N} \times 100$$

Where,
P is the proportion
Response frequencies denoted by X
Number of Respondents = N

Mean
The average is calculated by dividing the overall score by the total number of tests administered. according to the formula:

$$X = \frac{\sum X_i}{N} \ (i=1, 2, 3, 4\ldots\ldots n)$$

Where,
X =Mean
$\sum X_i$=Sum of all the scores in a distribution,
n = Number of respondents,
N = Total number of respondents

Mean Percent Score

$$\text{MPS} = \frac{\text{Total score obtained by the respondents}}{\text{Maximum obtainable score}} \times 100$$

Rank
The rankings are given in descending order of the average percentage of points earned. This allowed for a comprehensive overview of everything relevant to the issues at hand.

Graph and diagram
After the data has been analyzed, the results are presented graphically in the way most conducive to comprehension.

Results and Discussion
The finding in present study entitled "Study on nutritional status of feed & fodder and feeding practices adopted by dairy farmers in Sikrara block of Jaunpur District, Uttar Pradesh" are presented and discussed in this chapter under different heading. The present result and discussion following objectives are here.

Role of human resources in buffalo management in sikrara block Jaunpur
Age, education, family composition, land area, and number of buffalo were all examined to create a profile of buffalo farmers in Sikrara Block, Jaunpur District, Uttar Pradesh. Identical examples may be found down below.

Age
Table 2 shows that the majority of home owners are between the ages of 30 and 49. This is followed by those between the ages of 30 and 49. The oldest group, at 28.66 percent, represents the oldest demographic. Older people as a group made up the smallest fraction of animal farmers.

Table 2: Respondents' ages are distributed as shown below

Class of age	Frequency	Percentage
Aged less than 28	44	29.33
Age Range: 29-45	63	42.00
Over the age of 45	43	28.66
Total	150	100

Education: According to the numbers in Table 3, only 30.66 percent of respondents did not have a high school diploma or less, whereas 44.0 percent of respondents did and 25.33 percent had some college.

Table 3: Distribution of respondents according to their education level

Gathering of Educators	Frequency	Percentage
Illiterate	46	30.66
Literate	66	44.00
Educated	38	25.33
Total	150	100

Proportion of land owned
Table 4 reveals that out of the total of 150 respondents, 47.33% were farmers with land holdings of 3 to 6 hectares, 32.00% were farmers with land holdings of less than 3 hectares, and 20.66% were farmers with land holdings of 6 hectares or more.

Table 4: Assess the size of land holdings as reported by respondents

Area of ownership	Frequency	Percentage
Area Less than 3 hectares	48	32.00
3 to 6 hectares	71	47.33
More than 6 hectares	31	20.66
Total	150	100

Table 5: Chart showing the geographic distribution of those surveyed by wealth

Respondent's yearly income	Frequency	Percentage
Below Rs. 40, 000	35	23.33
Rs. 40,000 to 80,000	73	48.66
Above Rs. 80,000	42	28.00
Total	150	100

Table 5 shows the breakdown of respondents by their yearly income. It shows that of all respondents, 18.75% were farmers with annual incomes of less than Rs.40,000, while 56.25% were farmers with annual incomes of Rs.40,000 to Rs.80,000, and 25.00% were farmers with annual incomes of more than Rs.80,000.

In terms of family size: According to the statistics in Table 6, 53.75 percent of respondents came from medium-sized families (6-9 people), while 30.00 percent came from small-sized families (up to 5 members), and 16.25 percent came from large families (10 or more members).

Table 6: Results from the survey, broken down by family size

Coefficient of family size	Frequency	Percentage
Small size (upto 5 members)	34	22.66
Medium size (6-9 members)	92	61.33
Large size (above 9 members)	24	16.00
Total	150	100

Table 7: Herd size as a predictor of survey respondent distribution

Herd Size	Frequency	Percentage
Small(up to 3-5)	39	26.00
Medium(5-6)	69	46.00
Large(above 6)	42	28.00
Total	150	100

According to the statistics in table 7, the most common herd size reported was medium (held by 46%), followed by small (held by 26%), and then big (held by 28%). According to the numbers, animal husbandry is the study area's second most important economic activity, right behind crop cultivation.

Summary and Conclusion
A survey was conducted in five villages of Sikrara block, Jaunpur district, India, to gather information on breeding methods in the area. The survey included small, medium, and large farmers, with a random sampling process. The data was analyzed for significance. The largest demographic was middle-aged people (42.0%), followed by young or elderly farmers (27.33%). Only 30.66% of the 150 respondents had no education, while 44.00% had education and 25.33% were well-educated. The majority of respondents were from medium-sized families (6-9 people), followed by smaller households and larger families (16.25%). Animal husbandry was found to be the second most important business activity in the region after crop cultivation.

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