

International Journal of Agriculture Extension and Social Development

Volume 8; Issue 11; November 2025; Page No. 11-16

Received: 13-08-2025
Accepted: 17-09-2025

Indexed Journal
Peer Reviewed Journal

Rural farm household profiles and socio-economic patterns in Punjab's agro-ecosystem

Raushan Kumar, Thennnavan S, Mithlesh Kumar and Gurshaminder Singh

University Institute of Agricultural Sciences, Chandigarh University, Punjab, India

DOI: <https://www.doi.org/10.33545/26180723.2025.v8.i11a.2614>

Corresponding Author: Raushan Kumar

Abstract

The socio-economic dimensions of agriculture in Punjab, such as education, landholding, caste, age, house type and family composition, farmers' involvement with agriculture and economic security. While scholars have examined socio-economic dimensions of agriculture separately, the understanding of them together as a cohesive unit is underdeveloped. Additionally, small holder farmers' preparedness to use digital platforms for farm advisories; and participation across generations; is also under-examined, in the context of increasing smartphone and internet access across Punjab.

In Kharif 2025, data was gathered from 80 farming households in five villages of Eastern Punjab: Fatehpur Jattan, Tole Majra, Dholan Majra, Barauli, and Doom Chheri. The results showed that 48.75% of farmers belonged to the General category, 36.25% OBC, and 15% SC. In terms of age, 58.75% of farmers were aged 30–50, suggesting a predominance of middle-aged farmers. Family types consisted of 58.75% nuclear and 41.25% joint families. A rise in digital penetration was observed, with 22.9% of farmers having smartphones, 22.9% having internet access, 16.4% using apps related to agriculture, and 16.4% accessing social media. All households lived in pakka houses. In education, data showed that 46.25% had primary school education, while 31.25% had middle school, and 22.5% had high school education. Land ownership data indicated that 41.25% of farmers had small holdings, 36.25% had marginal holdings, and 22.5% had large holdings. These findings demonstrate that socio-economic diversity among farmers remains important in relation to farmers' adoption of modern practices. This study will provide evidence for policymakers and development agencies to promote inclusive and technology-driven agricultural growth in Punjab.

Keywords: Agriculture, education, technology adoption, farmer socio-economic profile

Introduction

Agriculture remains the cornerstone of global livelihood, which includes diverse activities from crop production to livestock management ^[1, 2]. Its stability and productivity is affected by developing challenges such as climate change, technological progress and transfer of market dynamics. The socio-economic well-being of farmers around the world is deeply associated with agricultural policies, market access and environmental factors. In India, agricultural population is an important part of the population, which displays huge variety in underground patterns, resource access and income ^[3, 4]. Indian farming adopts scientific innovations from traditional subsistence to modern, mechanized enterprises. Punjab, often heralded as the "Granary of India, contributes substantially to the country's food security ^[5, 6, 7]. However, agricultural insurance and support schemes keep on facing challenges in coverage and effectiveness, with many farmers either unknown or dissatisfied, limit their uplift and impact of agriculture. Punjab, often called the "grandmother of India", plays a major role in ensuring the country's food supply. More than 80% of its fields are used to grow wheat and paddy, which are the major parts of India's grain production. The state has rich alluvial soils, a well - developed canal irrigation system and a good climate, which

all help to create a high -productive agricultural environment. However, over the years, the Green Revolution led the intensive farming, causing many socio-economic problems such as land fragmentation, ground water scarcity and resource issues ^[8, 9]. These problems now need a permanent solution. Agriculture of Punjab is also changing, more integrated economic models than traditional farming methods ^[10, 11]. Today, state cultivation includes various types of crops, supported by advanced machinery and technology, help to expand and improve agricultural practices with government programs and services. The success of these efforts depends on dealing with inequality, improving education and more closely involving farmers. This research on villages in Eastern Punjab namely Fatehpur Jattan, Tole Majra, Dholan Majra, Barauli, and Doom Chheri emphasizes the important role of recognizing socioeconomic and technological determinants in agriculture, which are extremely important for the development of appropriate policies and extension interventions for agricultural growth and improved farmer livelihoods ^[12, 13]. There are increasing levels of access to digital tools and educational opportunities that provide an opportunity to promote sustainable, market-oriented farming that is appropriate for the needs of the rural communities.

Materials and Methodology

The geographic site of study are agricultural villages located in the Eastern Punjab. The villages chosen were Fatehpur Jattan, Tole Majra, Dholan Majra, Barauli, and Doom Chheri in order to examine the socio-economics of farmer households. In order to collect accurate and rich data, a structured questionnaire was developed to collect data from a total of 80 farmers through direct visits to farmers' homes. The reliability of the data was further monitored through the training of interviewers and clear wording of possible responses. Conversations with local leaders, for example, Gram Pradhan/President, and Ward Member, added further depth and insight into the research context. As a result, the use of quantitative data and qualitative stories provided robust understanding of the status of the agricultural

community, and of farmers' practices and challenges.

Results and Discussion

Various socioeconomic survey topics were examined, and the outcomes will be discussed in the subsequent sections.

1. Caste

From the data out 80 farmers, revealed that large percentage of farmers belonged to general category while. Overall percentage of General was 48.75% and OBC was 36.25% and SC 15%. General category were highest in the number followed by OBC and SC category. Most of them were engaged in farming, trading and livestock rearing as shown in Table 1 and Figure 1.

Table 1: Distribution of farmers by caste category of different villages.

S. No.	Category	Barauli N= 21	Fatehpur Jattan N=15	Doom Cheeri N=14	Tole Majra N=14	Dholan Majra N=16	Total N=80	Percentages
1	General	9	8	9	6	7	39	48.75%
2	OBC	9	5	4	5	6	29	36.25%
3	SC	3	2	1	3	3	12	15%

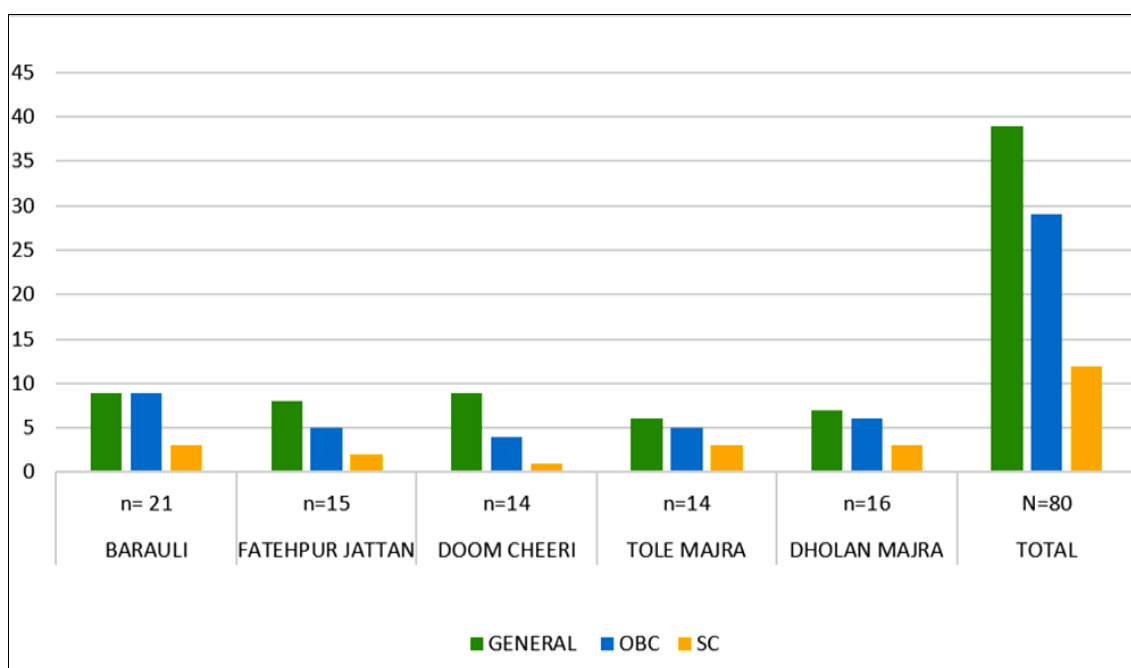


Fig 1: Caste Category of surveyed population

2. Age

The data revealed that among 80 respondents across five villages, 21.25% belonged to the 18–30 age group, 58.75% were between 30–50 years, and 20% were in the 50–80 age

group. The majority of farmers fell in the 30–50 age, indicating that middle-aged individuals are more actively engaged in farming activities, while youth participation remains comparatively lower as shown in table 2 fig 2.

Table 2: Depicts the age of the surveyed population

S. No.	Age	Barauli N=21	Fatehpur Jattan N=15	Doom Cheeri N=14	Tole Majra N=14	Dholan Majra N=16	Total N=80	Percentages
1	18-30	5	3	3	4	2	17	21.25%
2	30-50	12	8	8	7	12	47	58.75%
3	50-80	4	4	3	3	2	16	20%

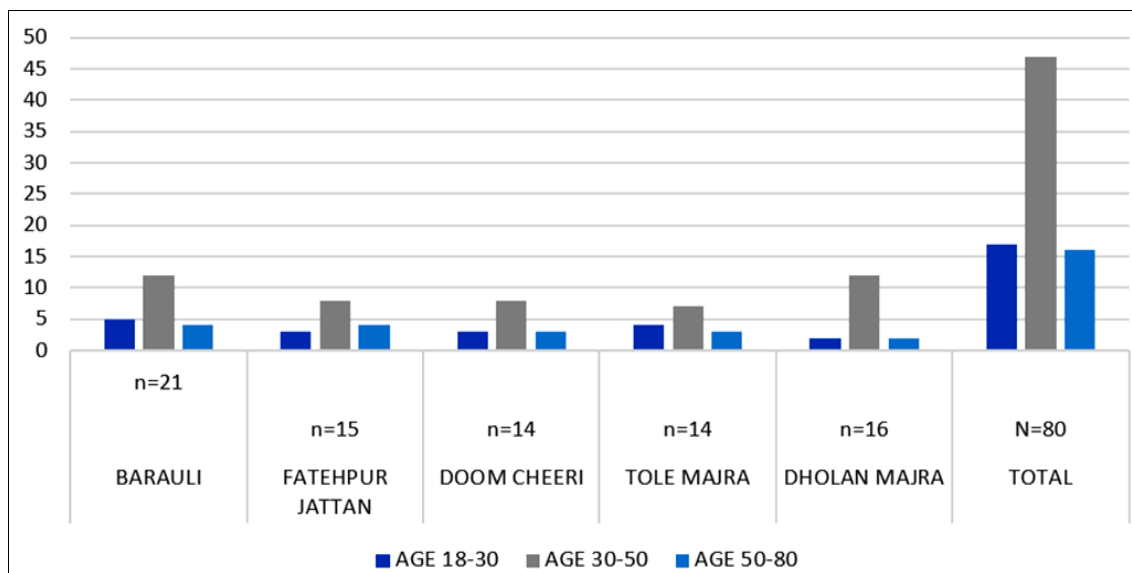


Fig 2: Depicts the age of the surveyed population

3. Family composition

In the study of family structures across five Punjab villages, 80 families were surveyed, comprising 58.75% nuclear and 41.25% joint families. Joint family systems were more prevalent overall, particularly in Dholan majra and Fatehpur

Jattan, while nuclear families were relatively higher in Barauli. These findings highlight the continuing significance of joint family arrangements in rural Punjab communities as shown in Table:3 and Fig:3.

Table 3: Depicts Family Composition

S. No.	Family	Barauli N=21	Fatehpur Jattan N=15	Doom Cheeri N=14	Tole Majra N=14	Dholan Majra N=16	Total N=80	Percentage
1	Nuclear	15	7	9	8	8	47	58.75%
2	Joint	6	8	5	6	8	33	41.25%

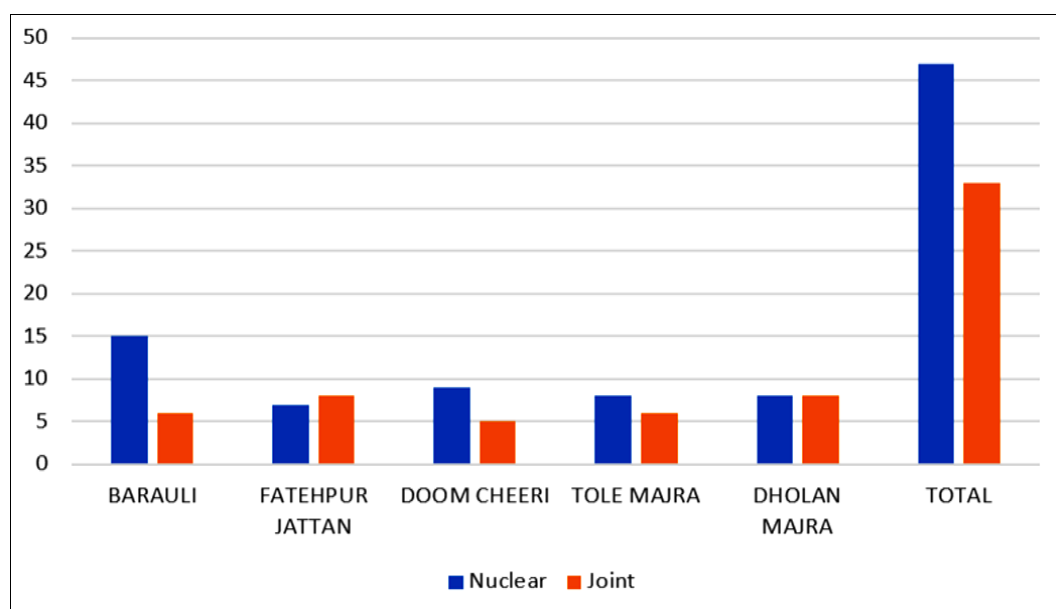


Fig 3: Family composition of surveyed population

4. Mobile Accessibility

According to the survey conducted out of 80 farmers, 22.9% have smartphone, 22.9% have internet, 23.3% have keypad phone. 16.4% are using agricultural related apps and 16.4%

are connected to social media as you can see in Fig 4. These findings reflect increasing digital penetration among farmers, which aligns with recent reports on rural technology adoption in Punjab [14, 15].

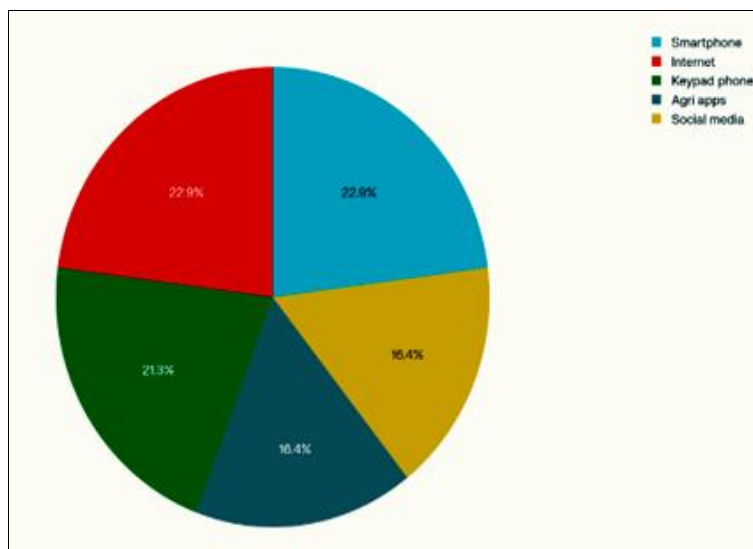


Fig 4: Mobile accessibility of surveyed population

5. House Type

All surveyed households across the five villages were found to have pakka houses, accounting for 100% of the sample.

No kacha or semi-pakka houses were recorded, indicating a uniformly permanent housing infrastructure in the study area as shown in Table 4 and Fig 4.

Table 4: Type of houses of farmers

S. No.	House	Barauli N=21	Fatehpur Jattan N=15	Doom Cheeri N=14	Tole Majra N=14	Dholan Majra N=16	Total N=80	Percentage
1	Pakka	21	15	14	14	16	80	100%

6. Educational Background

Most families (46.25%) have primary education, followed by 22.50% with high school education, and 31.25% with middle school education. The data indicates a relatively high

level of schooling in the surveyed area, with a significant proportion reaching high school level as shown in Table 5 and Fig 5 ^[16].

Table 6: Educational Background of different villages

S. No.	Education	Barauli N=21	Fatehpur Jattan N=15	Doom Cheeri N=14	Tole Majra N=14	Dholan Majra N=16	Total N=80	Percentage
1	Primary School (1-8)	8	7	7	7	8	37	46.25%
2	Middle School (9-10)	8	4	4	5	4	25	31.25%
3	High School (10+2)	5	4	3	2	4	18	22.50%

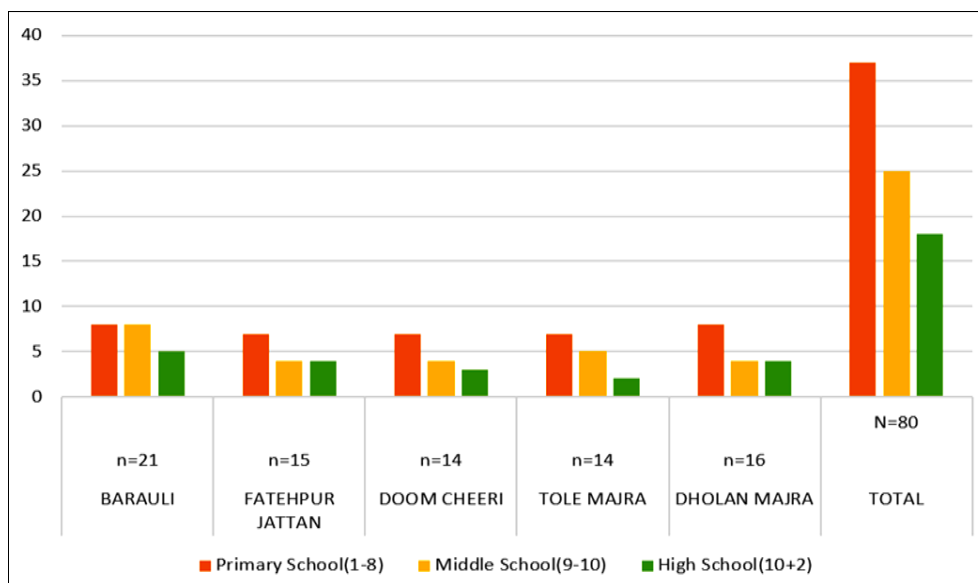


Fig 6: Educational Background of surveyed population

7. Land Holding Capacity

The majority of land holdings in the surveyed villages are small sized (41.25%), followed by Marginal (36.25%) and large holdings (22.50%). This pattern typically reflects rural

landholding trends in Punjab, where small and marginal farmers are predominant as shown in Table 7 and Fig 7 [17, 18, 19, 20].

Table 7: Land Holding farmers from different villages

S. No.	Land Holding	Barauli N=21	Fatehpur Jattan N=15	Doom Cheeri N=14	Tole Majra N=14	Dholan Majra N=16	Total N=80	Percentages
1	Marginal(<1hec)	7	5	6	5	6	29	36.25%
2	Small(1-3hec)	9	6	5	6	7	33	41.25%
3	Large(>4hec)	5	4	3	3	3	18	22.50%

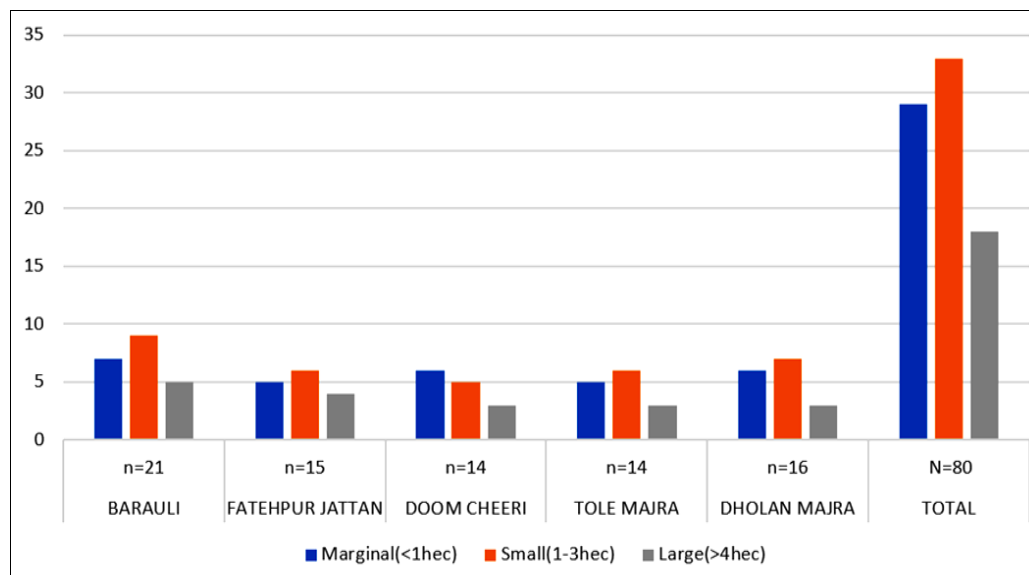


Fig 7: Land holding capacity of surveyed population

Conclusion

Based on the information provided, here is a brief summary of the socio-economic profile of farmers in villages such as Fatehpur Jattan, Tole Majra, Dholan Majra, Barauli, and Doom Chheri in Punjab based on primary data derived from 80 farming families. The general caste represented 48.75%, OBC 36.25%, and SC 15%. The age distribution of farmers revealed that 21.25% were aged 18–30 years, 58.75% were in the 30–50 year range, and 20% were aged 50–80 years. The majority of households fell into the middle-age group. For the social/family patterns, 58.75% of households surveyed indicated that they were nuclear families, while 41.25% indicated that they were joint families. Overall technology usage was moderately integrated into each household as 22.9% of households reported the use of smartphones and internet while 16.4% reported using agricultural-related apps and social media. All households surveyed were indicated to be pakka houses, and the level of education was mostly families (46.25%) have primary education, followed by 22.50% with high school education, and 31.25% with middle school education. The majority of land holdings in the surveyed villages are small sized (41.25%), followed by Marginal (36.25%) and large holdings (22.50%). The main finding from the study suggests a stable agrarian community with the potential to increase both the use of digital technology and educational achievement of the household members that would support a more sustainable agriculture practice and policy planning.

References

1. Kaur H, Mohan I, Singh G. The social profile of farmers in the village of SAS Nagar district of Punjab. *J Agric Ecol*. 2023;15:148-153.
2. Singh H, Nagpal P, Dafouti A, Nanda HB. Socioeconomic profile: A tool for improving cultural and economic status of farmers from SAS Nagar (Mohali) district Punjab. c2022.
3. Anjana RA, Sidhu K. Socio-economic Profile of the Farmers in Five Agro-Climatic Zones of Punjab, India. *Asian J Agric Extension Econ Sociol*. 2022;40(9):8-16.
4. Gohain N. An analysis of problems and constraints faced by farmers in marketing of agricultural produce in Punjab. *Econ Aff*. 2018;63(3):295-403.
5. Singh P. Weather index insurance viability in mitigation of climate change impact risk: a systematic review and future agenda. *J Sci Technol Policy Manag*. c2022.
6. Dhas Y. Impact of rural agricultural work experience (RAWE) program on agriculture graduates of Vellayani campus, KAU. Department of Agricultural Extension, College of Agriculture, Vellayani; c2006.
7. Arora A. Research on Socio-Profile of Farmers of S.A.S. Nagar District, Punjab. *Asian J Agric Extension Econ Sociol*. 2024;42(11):140-147.
8. Singh T, Kundu N, Batti Y, Singh G. Exploring the socio-economic dimensions of rural farming in Rupnagar, Punjab. *Int J Res Agronomy*. SP-7(11):106-110.

9. Dhas YS, *et al.* Impact of RAWE program on agriculture graduates. Dept. of Agricultural Extension, College of Agriculture, Vellayani; 2006.
10. Anjana RA, Sidhu K. Socio-economic status of small and marginal farmers in Punjab. 2022.
11. Journal of Social Psychology & Social Works. Role of Agriculture Extension Services in Enhancing Crop Productivity: A Review of Punjab. J Soc Psychol Soc Work. 2025;3(2):382–395.
12. Pandey DK, Upadhyay AD. Socio-economic profile of fish farmers of an adopted model aquaculture village: Kulubari, West Tripura. Indian Res J Ext Educ. 2012;2(1):55-58.
13. Roy ML, Chandra N, Kharbikar HL, Joshi P, Jethi R. Socio-economic status of hill farmers: An exploration from Almora district in Uttarakhand. 2013.
14. Singh G, Choudary S, Nayak S, Malik G. Study on socio-profile of farmers in SAS Nagar District of North-Eastern Punjab, India. The Pharma Innovation J. 2023;12(2):441-449.
15. White KR. The relation between socio-economic status and academic achievement. Psychol Bull. 1982;91:461-481.
16. Nayar M, Niranjana A. A socio-demographic analysis of the size and structure of the family in India. J Fam Stud. 2020;36(4):22-24.
17. Rajan A. Farmers' life in rural areas; 2018. Accessed on 25 August 2018. <https://www.livemint.com/Smalland-marginal-farmers>.
18. Makkar A. Awareness of farm families towards new agriculture technologies; 2016. Accessed on 20 June 2019. <http://www.simplinotes.com/perception-meaning-definitions-features-sensation-perception>.
19. Kaur M, Singh R. Land fragmentation and farm size patterns among small and marginal farmers in Punjab. Agric Econ Res Rev. 2023;45(3).
20. Mehta S, Gill PS. Impact of landholding size on income and productivity of rural households in North-West India. J Agrarian Stud. 2022;12(2):115-123.