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Socio-economic status of wheat growers in Azamgarh District, Uttar Pradesh

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Abstract

This study examined the socio-economic profile of wheat growers in Azamgarh district, Uttar Pradesh, India. A descriptive research design was employed, with data collected through structured interviews from a sample of 200 randomly selected farmers across 20 villages. Descriptive statistics (mean, standard deviation, frequencies, and percentages) were used to analyze variables such as age, education, caste, family, landholding, income, and behavioral traits. The results indicate that most wheat growers are middle-aged (mean age ≈ 49.7 years) and literate, with moderate family sizes. The majority belong to General and Other Backward classes, and nearly 90% are Hindu. Income levels are predominantly in the medium range (1.68-3.91 lakh INR), and landholdings are mostly small (1-2 ha) or marginal (<1 ha). Social participation is relatively low (59% have no organizational affiliation). Attitudinal measures show that most farmers have moderate risk orientation, scientific orientation, and economic motivation. In terms of information sources, local informal networks (family, neighbors) and modern media (mobile phones, internet) are highly influential, whereas traditional formal channels (block officials, demonstrations) are less utilized. These findings suggest that wheat growers in Azamgarh have diverse socio-economic characteristics and varying access to resources. Policy interventions should be tailored to their specific needs to enhance productivity and food security.

Keywords: Wheat growers, socio-economic status, landholding size

Introduction

Wheat (*Triticum aestivum*) is one of the world's most important cereal crops. It was among the first domesticated food crops, with cultivation dating back over 10,000 years. Today, wheat is grown on more land area than any other crop and remains a vital staple grain for human diets. The global significance of wheat extends beyond nutrition: it is a major commodity in international trade, with global wheat trade volumes exceeding those of any other crop. Wheat grain is used not only for making bread, pasta, and other food products but also as animal feed and even for biofuel production, reflecting its versatility and economic importance.

In India, wheat is a key staple and one of the largest food crops. Major wheat-producing states include Uttar Pradesh, Punjab, Haryana, Madhya Pradesh, and Rajasthan. Uttar Pradesh, in particular, contributes substantially to national wheat output, making its production crucial for both regional livelihoods and food security. Azamgarh district, located in eastern Uttar Pradesh, has extensive cereal cultivation, with wheat being an important Rabi (winter) crop. Understanding the socio-economic status of wheat growers in this region is essential for designing effective agricultural policies and support programs.

The present study was undertaken to profile the socio-economic characteristics of wheat farmers in Azamgarh district and to assess their access to information and extension services. Key dimensions explored include demographic attributes (age, education, caste, religion), economic factors (landholding, income, housing), social engagement (organizational participation), and behavioral traits (risk and scientific orientation, economic motivation). By identifying the strengths and constraints among different farmer groups, the study aims to inform targeted interventions that can improve productivity and rural livelihoods.

Methodology

The research was conducted in Azamgarh district of Uttar Pradesh during the 2024-2025. Two blocks Atrauliya and Sadhayawaganj were purposively selected from the district's 22 blocks, based on their significant wheat cultivation. From each block, ten villages were randomly chosen, and in each village, ten wheat-growing households were selected by simple random sampling, yielding a total sample size of N = 200 respondents. The sampling ensured a broad representation of farmers in the region.

Data were collected using a structured interview schedule administered to each selected farmer. The instrument gathered information on various socio-economic variables, including age, caste, religion, education level, family size and type, landholding size, annual income, housing type,

and membership in agricultural or social organizations. It also included scales measuring scientific orientation, economic motivation, and risk orientation in farming, as well as questions about sources of agricultural information (formal, informal, and mass media contacts).

For data analysis, a descriptive research design was adopted. Quantitative measures such as mean, standard deviation, frequency, percentage, minimum and maximum values were computed for each variable. These statistics provided an overview of the distribution and central tendencies of the farmers' socio-economic characteristics. The presentation of results combines narrative summaries with tabular data (where appropriate) to highlight key findings.

Results and Discussion

Farmer Demographics: The sample consisted mainly of middle-aged individuals: 56.0% of respondents were between 37 and 62 years old, while only 24.0% were younger than 36 years and 20.0% were over 62. The mean age was approximately 49.7 years (SD ≈ 13.4 years). In terms of social background, 36.5% of the farmers belonged to the General (upper) caste category, 32.0% to Other Backward Classes, and 31.5% to Scheduled Castes. Religiously, the population was predominantly Hindu (89.5%), with the remainder (10.5%) being Muslim. Educational attainment was high: 99.5% of respondents were literate, and 33.5% had graduate or postgraduate qualifications. Lower education levels were less common: only 0.5% were illiterate, 3.0% had just basic literacy (can read/write), 6.0% had primary education, 8.0% middle school, 19.0% high school, and 30.0% intermediate. Thus, the typical wheat farmer in this area is literate and often well-educated beyond the secondary level.

Economic Status and Household Characteristics: Annual farm income among respondents showed a moderate range. The mean annual income was about INR 2.80 lakh (SD ≈ 1.124 lakh), with a minimum of INR 0.65 lakh and a maximum of INR 5.80 lakh. By categorization, 63.0% of farmers fell into the "medium" income range (INR 1.68-3.91 lakh), while 19.5% were in the high-income bracket (≥ INR 3.92 lakh) and 17.5% in the low-income bracket (≤ INR 1.67 lakh). Landholdings were generally small: the average farm size was only 1.56 hectares (SD ≈ 0.823), ranging from 0.2 to 3.8 ha. Most farmers were either marginal or small holders: 30.0% had less than 1.0 ha (marginal), 38.0% had 1.01-2.00 ha (small), and 32.0% had 2.01-10.0 ha (medium). In housing, over half of the households (52.0%) lived in fully pucca (permanent) houses, 47.5% in mixed-construction homes, and only 0.5% in kacha (temporary) dwellings. These findings indicate that while incomes vary, most growers operate on limited land and reside in relatively secure housing.

Social Participation: Farmer involvement in community or cooperative organizations was limited. A majority (59.0%) of respondents reported *no participation* in any farmer groups or societies. Another 37.5% were members of one organization, and a mere 3.5% belonged to two. This suggests that formal social networks (cooperatives, self-help groups, etc.) are not widely utilized by wheat growers in Azamgarh, which may affect collective action or access to

shared resources.

Attitudinal Factors: The study assessed farmers' orientations using standardized score-based scales. For *risk orientation*, the mean score was 19.74 (on a scale where higher scores indicate greater willingness to take risks), with a range from 14 to 23. Classification shows 46.0% of farmers had a medium level of risk orientation (score 18-20), 35.5% high (≥21), and 18.5% low (≤17). Regarding *scientific orientation* (interest in adopting new technologies), the mean score was 19.81 (range 15-24). Half of the respondents (50.5%) were at a medium level (scores 18-21), 30.5% high (≥22), and 19.0% low (≤17). *Economic motivation* (driving force to maximize income) had a mean of 17.08 (range 14-20): 52.0% of farmers were medium (scores 16-17), 40.0% high (≥18), and 8.0% low (≤15). Overall, these results indicate that most farmers exhibit moderate attitudes toward innovation and risk, with only a minority being strongly conservative or highly risk-seeking.

Information and Extension Contacts: Farmers reported using a mix of formal, informal, and mass media sources to obtain agricultural information. Key findings include:

Formal sources: The local Gram Pradhan (village head) was the most influential formal contact (Mean Per Score [MPS] = 91.35, rank 1), indicating that village-level leadership plays a critical advisory role. Fertilizer/seed stores (MPS = 53.78) and the Village Development Officer (MPS = 36.14) were the next most cited formal sources. In contrast, agricultural scientists (MPS = 22.42), agricultural colleges/universities (MPS = 22.28), and co-operative societies (MPS = 14.64) were utilized to a lesser extent. Block Development Officers (MPS = 14.35) and Assistant Development Officers (MPS = 14.42) had the lowest contact scores. This pattern suggests that top-down extension services (block-level officers) have limited reach, whereas more accessible local actors are more active in disseminating information.

Informal sources: Family members were universally important, receiving an MPS of 100 (rank 1) effectively all farmers cited family advice. Neighbors (93.56, rank 2) and friends (89.00, rank 3) were also major informal channels for sharing agricultural knowledge. Local community leaders (47.71) and relatives (40.35) had moderate influence, while so-called "progressive farmers" (model farmers) were the least-cited informal source (35.71, rank 6). These results highlight the dominance of close social networks (family, neighbors) in farmers' learning.

Mass media exposure: Modern digital media stood out. Mobile phones topped the list with an MPS of 94.57 (rank 1), followed by the Internet (90.21, rank 2) and newspapers (88.50, rank 3). Television (74.71) and agricultural books (71.92) also played significant roles. In contrast, traditional extension events were far less effective: field days (MPS 30.85), farmers' fairs (33.07), demonstrations (29.71), and informational folders (25.57) were minimally utilized. Surprisingly, radio once a staple of rural communication had an MPS of only 29.14 (rank 9). This shift towards mobile

and online information sources aligns with broader trends in rural India where digital connectivity is expanding rapidly. For example, previous studies have documented similar patterns of information use among farmers in India (Kumar *et al*., 2013) [1].

1. Age

Table 1: Distribution of respondents on the basis of their age

S. No.	Categories	Respondents	
		f	*%*
1.	Young age (up to 36)	48	24.00
2.	Middle age (37 to 62)	112	56.00
3.	Old age (63 and above)	40	20.00
Total		200	100.00

Mean= 49.725, S.D.= 13.389, Min.= 27, Max.= 78, *f*= Frequency, %= Percentage

2. Caste category

Table 2: Distribution of the respondents on the basis of their caste

S. No.	Categories	Respondents	
		f	*%*
1.	General caste	73	36.50
2.	Other Backward caste	64	32.00
3.	Scheduled caste	63	31.50
Total		200	100.00

Mean= 3.05, S.D.= 0.82516, Min.= 2, Max.= 4, f= Frequency, %= Percentage

3. Religion

Table 3: Distribution of the respondents on the basis of their caste

S. No	Categories	Respondents	
		f	%
1.	Hindu	179	89.50
2.	Muslim	21	10.50
Total		200	100.00

Mean = 1.105 S.D.= 0.307322, Min.= 1, Max.= 2, *f*= Frequency, %= Percentage

4. Education

Table 2: Distribution of the respondents on the basis of education

S. No.	Categories	Respondents	
		f	*%*
1.	Illiterate	01	00.50
2.	Literate	199	99.50
i	Can read and write only	06	03.00
ii	Primary school	12	06.00
iii	Middle school	16	08.00
iv	High school	38	19.00
v	Intermediate	60	30.00
vi	Graduate & Post graduate	67	33.50
Total		200	100.00

Mean= 4.66, S.D.= 1.372522, Min.= 0, Max.= 6, *f*= Frequency, *%*= Percentage

5. Annual Income

Table 5: Distribution of the respondents on the basis of their annual income (Lakh)

S. No.	Annual income	Respondents	
		f	*%*
1.	Small (Up to 1.67)	35	17.50
2.	Medium (1.68 - 3.91)	126	63.00
3.	Large (3.92 and above)	39	19.50
Total		200	100.00

Mean= 2.7985, S.D.= 1.124430, Min.= 0.65 Max.= 5.8, *f*= Frequency, %= Percentage

6. land holding

Table 6: Distribution of respondents on the basis of their land holding (hectares)

S. No.	Categories	Respondents	
		f	*%*
1.	Marginal Farmers (below 1.0)	60	30.00
2.	Small farmers (1.01 to 2.00)	76	38.00
3.	Medium Farmers (2.01 to 10.0)	64	32.00
Total		200	100.00

Mean= 1.56265, S.D.= 0.823110736, Min.= 0.2 Max.= 3.8, *f*= Frequency, %= Percentage

7. Social participation

Table 7: Distribution of the respondents on the basis of their social participation

S. No.	Categories	Respondents	
		f	*%*
1	No participation	118	59.00
2	Participation in one organization	75	37.50
3	Participation in two organization	7	03.50
Total		200	100.00

Mean=1.445, S.D.= 0.564418142, Min.= 1 Max.= 3, *f*= Frequency, *%*= Percentage

8. Housing Pattern

Table 8: Distribution of the respondents on the basis of their housing pattern

S. No.	Categories	Respondents	
		f	*%*
1	Kaccha	1	00.50
2	Mixed	95	47.50
3	Pucca	104	52.00
Total		200	100.00

Mean=2.52, S.D.= 0.520533163, Min.= 1 Max.= 3, *f*= Frequency, %= Percentage

9. Risk Orientation

Table 9: Distribution of respondents on the basis of their risk orientation

S. No	Categories (Score value)	Respondents	
		f	*%*
1.	Low (up to 17)	37	18.50
2.	Medium (18 to 20)	92	46.00
3.	High (21 and above)	71	35.50
Total		200	100.00

Mean=19.74, S.D.= 2.230239864, Min.=14, Max.= 23, *f*= Frequency, %= Percentage

10. Scientific Orientation

Table 10: Distribution of the respondents on the basis of their scientific orientation

S. No	Categories (Score value)	Respondents	
		f	*%*
1.	Low (up to 17)	38	19.00
2.	Medium (18 to 21)	101	50.50
3.	High (22 and above)	61	30.50
Total		200	100.00

Mean= 19.805, S.D.= 2.543486113, Min.= 15, Max.= 24, *f*= Frequency, %= Percentage

11. Economic Motivation

Table 11: Distribution of the respondents on the basis of economic motivation

S. No	Categories (Score value)	Respondents	
		f	*%*
1.	Low (below 15)	16	08.00
2.	Medium (16 to 17)	104	52.00
3.	High (18 and above)	80	40.00
Total		200	100.00

Mean=17.075, S.D.=1.227562, Min.= 14, Max.= 20, *f*= Frequency, %= Percentage

Table 13: Distribution of respondents on the basis of their (Informal sources) extension contact

B.	Informal Sources		
1.	Family Member	100.00	I
2.	Neighbors	93.56	II
3.	Friends	89.00	III
4.	Relatives	40.35	V
5.	Local Leaders	47.71	IV
6.	Progressive farmers	35.71	VI

Table 14: Distribution of respondents on the basis of their (Mass media exposure) extension contact

C.	Mass Media Exposure		
1.	Radio	29.14	IX
2.	T.V.	74.71	IV
3.	News Paper	88.50	III
4.	Agril. Books	71.92	V
5.	Field day	30.85	VII
6.	Mobiles	94.57	I
7.	Farmers Fair	33.07	VI
8.	Demonstration	29.71	VIII
9.	Folders	25.57	X
10.	Internet	90.21	II

MPS= Mean Per Score

Conclusion

Wheat growers in Azamgarh district constitute a diverse group of small-scale farmers who contribute significantly to local food production. The typical farmer is a middle-aged, educated individual operating on a small (often marginal) farm, with a moderate annual income. While formal organizational engagement is limited, most farmers rely on strong family and community networks for information. Attitudinally, the majority are moderately open to innovation and willing to take some risks, suggesting potential receptiveness to improved technologies if appropriately communicated. These findings have practical implications. Extension services and policy interventions should be tailored to the predominant socio-economic profile: for instance, programs might prioritize digital advisories and village-level influencers (Gram Pradhans) to reach these farmers effectively. Credit and training schemes could target marginal and smallholders, who make up the bulk of the population. Given the educated nature of the farmers, complex or technical innovations may be adopted if demonstration and support are provided. Overall, addressing the heterogeneous needs of wheat growers in Azamgarh can help improve crop productivity, enhance farm incomes, and strengthen regional food security. Customized strategies rather than one-size-fits-all approaches will be essential to leverage the strengths and overcome the limitations of these farmers, thereby contributing to broader agricultural development and economic stability.

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