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Undergraduates' Perceptions and Engagement in Practical Agriculture: A Case of Landmark University, Nigeria

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HIGHLIGHTS

- Undergraduates showed positive perceptions of practical agriculture, especially hands-on learning and entrepreneurship skills.
- Factor analysis identified five dimensions shaping engagement: value, resources, mentorship, workload, and aspiration misfit.
- Academic workload/time constraints were the only significant negative predictor of perceived practical agriculture value.

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ABSTRACT

The article explores the perceptions and participation of undergraduates in practical agriculture education in Landmark University, Nigeria, and hypothesises whether the constraints associated with participation are significantly related to the perceived value of practical agriculture by students. Primary data were gathered using a structured questionnaire and analysed using descriptive statistics and exploratory factor analysis (PCA with oblimin rotation) on 329 undergraduates in four colleges. The respondents indicated positive involvement in practical agriculture and a positive attitude towards practical agriculture, with the highest scores on hands-on experience, acquisition of entrepreneurial skills, and perceived employment opportunities in the agricultural sector. Factor analysis produced five consistent elements, including perceived career value/personal relevance, institutional resourcing and technology deficits, mentorship/instructional support gaps, academic workload/time constraints, and status/aspiration misfit, explaining 62.55 per cent of total variance (KMO = 0.809; Bartlett's χ^2 significant). The results indicate that to enhance practical agriculture performance, it is necessary to protect practical time, strengthen instructional and mentorship support, and increase integration of resources and technology to maintain student engagement and align practical agriculture with diverse aspirations.

INTRODUCTION

In most developing nations, agriculture has been core to economic growth, food security and livelihood of the rural population, as it still forms a source of employment and revenue to a significant percentage of the population. The World Bank (2023) highlights that agricultural sector growth is especially efficient in poverty reduction and raising rural incomes whereas the International Labour Organisation (2022) forecasts that almost 1 billion individuals across the world are involved in agriculture, which

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highlights its further labour-consumption ability. As population grows, dietary patterns shift, and pressure on natural resources increases, global food systems are becoming increasingly challenged, and sustainable and innovation-based agriculture practices are needed (Food and Agriculture Organisation (FAO), 2025). The Organisation for Economic Co-operation and Development (OECD) & Food and Agriculture Organisation of the United Nations (FAO) (2025) also point out that the future agricultural growth would be significantly reliant on future productivity gains, facilitated by technological adoption, skills acquisition, and the use of evidence-based decisions throughout the agrifood sector.

The experiential method of learning, especially the practical exposure method, is deemed effective in bringing theoretical knowledge into practical competencies in the real world (Kolb, 1984). It has been empirically proven that applied learning settings increase the level of student engagement, skills acquisition and problem-solving skills in comparison to traditional lecture-based instruction (Freeman et al., 2014). Farm practical training programmes in Nigeria have demonstrated that students appreciate exposure to experience, but the effectiveness is limited due to logistical, infrastructural, and instructional constraints (Adefalu et al., 2021). Youth often perceive agriculture as labour-intensive or less prestigious compared to white-collar professions, particularly where exposure to modern technologies and agribusiness opportunities is limited (Obayelu & Fadele, 2019). Similarly, Nwankwo (2015) reported that students' attitudes toward agriculture strongly affect their interest in agricultural programmes and related career pathways. When agriculture is viewed as relevant, innovative, and opportunity-oriented, students are more likely to engage actively and consider agripreneurship as a viable livelihood option (Owoade, 2020).

Landmark University, Nigeria, established with a strong agrarian philosophy, integrates compulsory practical agriculture into its curriculum to build entrepreneurial and technical competencies among undergraduates. The success of such institutional programs, however, is largely determined by the nature of the perceptions and interactions of students with these practical experiences. There is little empirical data on undergraduate perceptions of the value of practical agriculture in such a setting and specifically in terms of the participation barriers of the resource availability, mentorship, academic load, and alignment of aspirations. The knowledge of these factors is critical in enhancing experiential learning systems and processes, curriculum delivery, and the preparation of graduates to play a significant role towards achieving sustainable agriculture, food security and rural development targets that meet SDGs 1 and 2. Hence, the current research was conducted to determine the perceptions of the undergraduates on the issue of practical agriculture, to establish the extent of their involvement, and to determine the most important things that they consider when participating in the practical agricultural education.

METHODOLOGY

The research was carried out in Landmark University, Omu-Aran, in the Irepodun Local Government Area in Kwara State, Nigeria. Living Faith Church Worldwide founded the university in 2011 and is an agrarian-based institution that has a call to ensure agricultural transformation in the form of education, innovation and development of entrepreneurship. Practical agriculture is a mandatory part of the curriculum, meaning that students are subjected to crop production, livestock management and other field-based activities that aim at giving them hands-on experience and acquisition of skills. All undergraduates pursuing the universal practical course on agriculture that is compulsory at the university, regardless of their field of study, formed the population of the study. The sampling method used was stratified in order to have a proportional representation of students at the four colleges, namely, Agricultural Sciences, Business and Social Sciences, Pure and Applied Sciences, and Engineering. Out of a sample size of 329 (10%) out of 3281 students (the total population of undergraduates of the institution) was sampled proportionally. Simple random sampling was used to select respondents within each stratum in order to achieve the research objective and reduce sampling bias. As a study variable, a well-designed questionnaire was used to gather primary data that consisted of socio-demographic variables of the students, perceptions of practical agriculture, participation level and the factors that limit participation were used to collect the data. The tool was a combination of closed-ended Likert-scale questions and categorical questions about the research objectives. Before the questionnaire was administered, it was also face validated by subject-matter experts in Agricultural Economics and Extension in order to ascertain that the questionnaire is clear, relevant, and contains enough content. The instrument was tested with the help of the test-retest method in order to check the reliability of the instrument. The collected data were analysed through descriptive and inferential statistical methods. The frequency, percentage, mean, and standard deviation were selected to present descriptive statistics to summarise the characteristics and the level of perception of respondents. The underlying dimensions that affected the engagement of students in practical agriculture were identified using the Exploratory Factor Analysis based on Principal Component Analysis (PCA) with oblimin rotation. To ensure the appropriateness of the data for factor analysis, the Kaiser- Meyer-Olkin (KMO) and Bartlett Test of Sphericity measures were used.

RESULTS

Perception of practical agriculture

Table 1 shows that the overall high valuation of practical agriculture is observed and the endorsed highest were around experience, opportunity, and enterprise. In particular, there was a high ranking of the hands-on opportunity of real-life farming challenges (M = 4.42, SD = 0.72), then entrepreneurial skills in agribusiness (M = 4.40, SD = 0.82), and perceived employment opportunities in the growing agricultural industry (M = 4.37, SD = 0.78). This tendency means that students primarily perceive practical agriculture not as an abstract academic imperative but as an instrumental, competence, productivity and income-generating activity. The finding aligns with the larger argument of experiential learning that learning-by-doing enhances skill development and competence that is relevant to employment (Kolb, 1984), and with the empirical data that active and applied learning is more effective than passive learning in improving student outcomes (Freeman et al., 2014).

Table 1. Perception of practical agriculture

Variables	Mean	Standard Deviation
Practical agriculture education enhances my employability after graduation	4.0424	1.02166
The modules taught in practical agriculture match the needs of the job market	3.8788	0.90448
My peers will consult and respect me if I obtain a degree in agriculture	3.5364	1.08045
Practical agriculture provides hands-on experience needed for real-world farming challenges	4.4212	0.71978
The skills acquired in practical agriculture can be applied to other fields beyond farming	3.8606	1.06561
It helps me acquire entrepreneurial skills for agribusiness	4.4000	0.81625
Practical agriculture will help me become self-employed after graduation	4.2273	0.88890
Practical agriculture is suited to my abilities and career aspirations	3.4273	1.22133
I believe there are employment opportunities in the growing agricultural sector	4.3667	0.77701
I want to learn agricultural innovations to develop sustainable farming practices.	3.9697	1.06861

There was also a high level of agreement among students that practical agriculture can help them to be self-employed upon graduation (M = 4.23, SD = 0.89) and improve employability (M = 4.04, SD = 1.02). These results are consistent with previous education research in Nigeria that suggests that good practical agriculture education is linked to better work preparedness and self-employment orientation (Okelola & Adeyolanu, 2024). In the same way, the moderately high score on transferability of skills outside of farming (M = 3.86, SD = 1.07) supports the perspective that practical agriculture imparts generic skills that facilitate intersectoral mobility - a perspective also supported by practical training research that students find value in farm practical exposure but wish it to be more organized and extensive across units (Adefalu et al., 2021).

Nevertheless, two outcomes lead to the critical perception frictions that may reduce the sustained engagement despite the student recognition of benefits. To begin with, the claim that modules are aligned with job-market requirements was only moderately agreed with (M = 3.88, SD = 0.90), which suggests that students see partial, but not full, correspondence between the practical content and the current labour-market demands. Second, the least rated was aspiration/fit (suited to my abilities and career aspirations; M = 3.43, SD = 1.22), and a moderate score was peer respect (M = 3.54, SD = 1.08). These items have relatively large standard deviations, which means that they are heterogeneous: although a large number of students feel fit and social value, a significant proportion of students feel doubt, stigma, or poor identity alignment. This aspiration-identity difference is reminiscent of broader Nigerian youth data that agriculture could be considered a hard vocation and not as appealing as other avenues, especially when agriculture is not presented as modern, technology-driven, and socially desirable (Obayelu & Fadele, 2019). It is also consistent with the results that misperceptions and social discourses may influence the readiness to engage even in the presence of opportunities (Owoade, 2020).

Misconception about agriculture

Table 2 shows that the respondents did not accept the stereotypes about agriculture to a large extent. The mean scores were always low on such statements like agriculture is only in rural areas (M = 1.75, SD = 1.04), farming is only in the less educated (M = 1.59, SD = 0.96), agriculture is a low-status occupation (M = 1.75, SD = 1.07), and agricultural work is only in the less educated (M = 1.65, SD = 0.99). Taken together, these reactions indicate a decreasing acceptance of conventional stigma discourses and an increasing awareness of agriculture as a valid professional and economic avenue. This trend is significant since previous youth-related research in Nigeria often reports status issues and aspiration mismatch as limitations to the decision to pursue agriculture as a profession (Obayelu & Fadele, 2019; Owoade, 2020). The relatively higher rejection of these stereotypes in the present sample could be due to the institutional orientation of Landmark University and the exposure to practical agriculture as a structured learning experience.

Nevertheless, two myths demonstrate lingering doubt instead of strong opposition. To begin with, the respondents were not as dismissive of the statement that modern technology has rendered agriculture less relevant (M = 2.10, SD = 1.29), which could be an indication of incomplete knowledge of how digitisation is transforming farm decision-making instead of making agriculture less relevant. As a matter of fact, agriculture is becoming more and more defined by the innovations of Agriculture 4.0, i.e., IoT-based sensors, data analytics, and precision technologies that facilitate real-

Table 2. Misconceptions about agriculture

Variables	Mean	Standard Deviation
Agriculture is only for people in rural areas	1.7455	1.04113
Agriculture is not a financially rewarding career	1.7333	0.99929
Farming is only for the less educated	1.5866	0.96237
Agriculture is a low-status profession	1.7545	1.06779
Modern technology has made agriculture less relevant	2.1000	1.28553
Agriculture cannot be practiced in urban areas	1.9455	1.10404
Agriculture is not a field for innovators and entrepreneurs	1.6242	1.03349
Agriculture work is boring and repetitive	2.2394	1.33697
Agricultural work is only for those who cannot get a white-collar job	1.6545	0.99332
Practical agriculture requires a lot of land	2.7909	1.34884

time monitoring of soil conditions and crop performance and enhance resource efficiency (FAO, 2025).

Second, the statement that practical agriculture needs much land got the most misconception score (M = 2.79, SD = 1.35), as well as that agriculture work is boring and repetitive (M = 2.24, SD = 1.34). These findings indicate that although students do not subscribe to status-based stereotypes, there is still a partial constraint-based framing of agriculture as land-intensive and routine. This is becoming less consistent with modern trends in urban and controlled-environment agriculture, where modular hydroponics, vertical farming, and other space-saving systems allow production in small areas, including urban areas (Senthamizh & Anbarasan, 2025).

Exploratory factor analysis of perceptions and constraints

To determine the latent dimensions that support the perceptions and engagement of students in practical agriculture, an exploratory factor analysis was performed using Principal Component Analysis (PCA) with oblimin rotation, which permits the extracted components to correlate. The sampling adequacy and factorability were satisfactory (KMO = 0.809) and the test of sphericity was significant (kh2(190) = 2721.78, p <.001), which confirmed that the inter-item correlation structure was suitable to extract factors. One five-component solution was retained and explained 62.55% of the total variance, which means that the extracted structure explained a significant portion of shared variance among the observed items.

The rotated solution (Table 3) generated conceptually consistent components that were aligned with the logic of measurement in the study. Factor 1 (Perceived career value and personal relevance) combined items reflecting employability, transferability of skills, perceived social recognition, and aspiration-fit (loadings 0.66-0.88), which is the extent to which students perceive practical agriculture as valuable and relevant to their future. Factors 2-4, in contrast, represented constraint domains that can prevent participation despite high perceived value. Factor 2 (Institutional resourcing and technology deficits) was a measure of inadequate equipment, poor adoption of modern technology, and inadequate financial support (loadings 0.50-0.66). Factor 3 (Mentorship and instructional support gaps) grouped instructor availability, mentorship, and access to demonstration resources (loadings 0.78-0.87). Factor 4 (Academic workload and time constraints) represented competing academic demands that restrict time to be spent on practical activities (loadings 0.60-0.72). Collectively, these constraint-related elements offer a differentiated explanation of why participation can be inhibited by resource shortages, ineffective instructional/mentorship support, and time pressure.

Factor 5 (Status/aspiration misfit: inverse opportunity orientation) was defined by items that defined opportunity- and innovation-oriented perceptions, but these measures were negatively loaded (0.63 to 0.81). Substantively, the negative loadings suggest that students who strongly support agriculture as opportunity-rich and innovation-driven are less prone to status/

Table 3. Rotated Factor Matrix Showing Components Affecting Students' Perception and Participation in Practical Agriculture

Factor	Label	Key indicators	Loading range	Interpretation
1	Perceived career value and personal relevance	Employability after graduation; peer respect/recognition; skills transferable beyond farming; suited to abilities and career aspirations	0.66–0.88	Higher scores reflect stronger belief that practical agriculture is valuable, career-relevant and personally meaningful, which should support participation.
2	Institutional resourcing and technology deficits	Lack of modern equipment/facilities; limited financial incentives/scholarships; poor integration with modern technology	0.50–0.66	Higher scores reflect structural/infrastructural barriers that reduce the quality and feasibility of participation.
3	Mentorship and instructional support gaps	Inadequate number of trained instructors; lack of mentorship opportunities; limited access to demonstration farms/ experimental plots	0.78–0.87	Higher scores indicate weak human support and learning scaffolding, likely reducing sustained engagement.
4	Academic workload and time constraints	High workload from other courses limiting time for practical agriculture *(plus any time-related cross-loaders, if applicable)*	0.60–0.72	Higher scores reflect crowding-out effects, students want to participate but time and academic pressure constrain involvement.
5	Status/aspiration misfit (inverse opportunity orientation)	Hands-on experience; entrepreneurial skills; self-employment potential; employment opportunities in agriculture; interest in innovations for sustainable practices	0.63–0.81 (negative)	These items loaded negatively, meaning that stronger endorsement of opportunity/ innovation is associated with lower status/ aspiration misfit. Practically: this factor captures a stigma/misfit dimension, where *opportunity orientation* operates in the opposite direction.

Note: Extraction Method: Principal Component Analysis, Rotation Method: Oblimin with Kaiser Normalisation, Only Loadings ≥0.30 are reported. Negative loadings show inverse relationships. KMO = 0.809; Barlett's Test: χ^2 (190) = 2721.78, p < 0.001, Total Variance explained by the five components: 62.55%

aspiration misfit or stigma-based disengagement. To use the factor in further modelling and hypothesis testing, the factor was thus considered a misfit/stigma dimension, and sign-flipping (or reverse-coding) was used such that higher factor scores always indicate higher misfit/stigma.

The given component correlation matrix in Table 4 presented some initial evidence in the context of H01. In particular, the perceived value component (Factor 1) was moderately negatively correlated with the misfit/stigma component (Factor 5; r = 0.498), which means that a higher perceived value of practical agriculture is likely to be accompanied by lower status/aspiration misfit. This correlation justifies the next step of formal hypothesis testing to establish whether the observed relationship is statistically significant and whether other elements of the constraint (institutional resourcing/technology deficits, mentorship gaps, and academic workload/time constraints) have systematic relationships with perceived value.

Table 4. Component Correlation Matrix

Component	1	2	3	4	5
1	1	0.052	–0.022	–0.105	–0.498
2	0.052	1	“0.203	0.311	0.017
3	–0.022	–0.203	1	–0.148	0.046
4	–0.105	0.311	–0.148	1	0.081
5	–0.498	0.017	0.046	0.081	1

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalisation.

DISCUSSION

The results show that there is an overall positive attitude of the undergraduates towards applied agriculture, especially in terms of its practical exposure, its orientation towards entrepreneurship and its prospects of employment. This kind of orientation is preferable from an agricultural extension perspective, given that it indicates that the students are not perceiving practical agriculture as an obligatory course requirement, but as an avenue to competence building and livelihood preparedness. This is consistent with experiential logic of learning, as repeated learning-by-doing improves perceived utility and competence (Kolb, 1984), and with the fact that active and applied learning positively affect student outcomes and involvement (Freeman et al., 2014). Student satisfaction and learning experience have been prioritised in such assessments of higher education programmes in the same way, and this is why capacity-building intervention should be designed to support skill-focused learning through supportive institutional processes (Tripathi et al., 2024).

Aspirational-fit and peer recognition items were less stable and more dispersed, indicating that although quite a number of students find the concept of usefulness of practical agriculture, there is still a group that is more hesitant to connect the concept of agriculture to themselves and their career opportunities of choice. Other related studies on youth engagement indicate that the decision to participate in livelihoods involving agriculture is deeply influenced by aspiration and future orientation, with the propensity to abandon agriculture in favour of different opportunities that seem to be less lucrative or oriented towards the preferred futures (Sai et al., 2024). Career-aspiration research also reveals evidence that hesitation and perception can affect the career preferences and assurance of students, which means that agricultural education associated with extensions needs to convey professional paths and social usefulness that are credible (Kriti et al., 2025).

Another extension implication is the misconception profile. The fact that generally students rejected the old stereotypes of agriculture only being rural, less educated, or inherently of low status, supports the idea that stigma can be negated successfully with the help of structured exposure and institutional focus. However, a greater correspondence to the concept of land-intensity and repetitiveness suggests that even the fall of status-based myths does not lead to the disappearance of constraint-based ones. In the case of extension education, this dictates that practical learning should be able to depict on the surface the modern agriculture protected cultivation, small-space production systems, and technology-facilitated decision making so that students can easily see the way agriculture can be innovative, scalable, and professionally differentiated.

The factor structure is also a good diagnostic that can be used to strengthen participation conditions. The dimensions obtained divide the perceived value and separate institutional resources/technology, mentorship/instructional support, academic workload/time pressure, and aspiration misfit domains that represent the success of the extension learning settings when motivation is coupled with facilitating support. Analogous student-centred research shows that the results of skill development require the help of structured training, such as communication and professional skills, to supplement the technical education (Sikdar & Prakash, 2025), as well as the fact that modern higher education tends to demand more widespread consideration of skills of the 21st century and less disciplinary knowledge (Yadav & Vatta, 2025). The research on student time-use behaviours highlights that poor time management and procrastination may undermine learning engagement and therefore takes a strong position in advocating controlled and properly planned practical time blocks (Malavika et al., 2025).

CONCLUSION

The practical agriculture at the Landmark University was a high-value experiential learning course, since students were fully linked with practical agriculture to real-life skills, entrepreneurship preparedness and job opportunities. Simultaneously, the relatively low scores on aspiration-fit and peer recognition suggested that practical agriculture did not necessarily turn out to be career-defining to all students; some students still abstained to consider agriculture to be identical to their own career goals or self-perception. Though students were much more open to the old stigma-based stereotypes, the fact that the beliefs like the fact that agriculture takes up a lot of land and that it is boring/repetitive indicated that the sector was still conventionally perceived in part. Therefore, the programme’s next improvement needed not only more practical sessions, but better-designed practical exposure to smart, modern, technology-enabled and vertical agriculture, linking practical tasks to clear agribusiness and innovation pathways, and strengthening mentoring and career guidance.

DECLARATIONS

Ethical approval and informed consent: Informed consent was ensured from the respondents of the study during the course of the research. Also, the consent from administration of the Landmark University, Omu-Aran, regarding the conduct of the study was sought.

Conflict of interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a personal conflict of interest. The authors declare that during the preparation of this work, they thoroughly reviewed, revised and edited the content as needed. The authors take full responsibility for the final content of this publication.

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REFERENCES

Adefalu, L. L., Ahmed, T. A., Aliyu, O. S., & Ajibade, O. (2021). Assessing agricultural students' attitude towards farm practical training in some selected universities in Kwara State, Nigeria. *International Journal of Agricultural Economics, Management and Development, 9*(1), 69–80.

Food and Agriculture Organisation (FAO). (2025). *Institutionalizing multi-actors' agricultural innovation platforms to foster field-level agricultural innovation systems by empowering smallholder farmers*. FAO. https://doi.org/10.4060/cd4146en

Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences of the United States of America, 111*(23), 8410–8415. https://doi.org/10.1073/pnas.1319030111

International Labour Organisation. (2022). *Global employment trends for youth 2022: Investing in transforming futures for young people*. ILO. https://doi.org/10.54394/QSMU1809

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.

Kriti, K., Singh, A., Yadav, A., & Anshu. (2025). Analyzing perception and hesitation in the context of home science career aspirations. *Indian Journal of Extension Education, 61*(1), 32–36. https://doi.org/10.48165/IJEE.2025.61106

Malavika, G., Shamsa, F., Allan, A. T., Thara, S., Meethal, S. V. K., Sowndhariya, S., & Thomas, A. (2025). Time management and procrastination patterns among undergraduate agriculture students. *Indian Journal of Extension Education, 61*(4), 128–133. https://doi.org/10.48165/IJEE.2025.61421

Nwankwo, O. C. (2015). Students' perception of agriculture in Nigeria's tertiary institutions: The implication on enrollment for the programmes in Abia State. *Journal of Sociology, Psychology and Anthropology in Practice, 7*(2), 37–47.

Obayelu, O. A., & Fadele, I. O. (2019). Choosing a career path in agriculture: A tough calling for youths in Ibadan metropolis, Nigeria. *Agricultura Tropica et Subtropica, 52*(1), 27–37. https://doi.org/10.2478/ats-2019-0004

Okelola, O. E., & Adeyolanu, D. T. (2024). Overview of agro-allied and agribusiness industries in Nigeria. *African Journal of Agriculture and Food Science, 7*(4), 133–142. https://doi.org/10.52589/AJAFS-DM9ZATG5

Organisation for Economic Co-operation and Development (OECD) & Food and Agriculture Organisation of the United Nations (FAO). (2025). *OECD–FAO agricultural outlook 2025–2034*. OECD Publishing. https://doi.org/10.1787/601276cd-en

Owoade, O. A. (2020). Perception of recipients of agricultural science education of agriculture and agribusiness: A survey. *Asian Journal of Agricultural Extension, Economics & Sociology, 38*(9), 11–20. https://doi.org/10.9734/ajaees/2020/v38i930403

Sai, M., Prusty, A. K., Padhy, C., & Reddy, I. C. (2024). Migration behavior of rural youth from agriculture in North Coastal Andhra Pradesh. *Indian Journal of Extension Education, 60*(4), 30–34. https://doi.org/10.48165/IJEE.2024.60406

Senthamizh, R., & Anbarasan, P. (2025). Urban agriculture in a changing world: A thematic review of global trends, innovations, governance, and pathways to sustainability. *Frontiers in Sustainable Food Systems, 9*, 1588248. https://doi.org/10.3389/fsufs.2025.1624426

Sikdar, S. S., & Prakash, S. (2025). Students' "communication skill" training preferences at Dr. Rajendra Prasad Central Agricultural University, India. *Indian Journal of Extension Education, 61*(1), 7–12. https://doi.org/10.48165/IJEE.2025.61102

Tripathi, H., Kaur, S., & Agrawal, R. C. (2024). Process evaluation through satisfaction indices: Drawing corollaries from National Agricultural Higher Education Project. *Indian Journal of Extension Education, 60*(4), 1–7. https://doi.org/10.48165/IJEE.2024.60401

World Bank. (2023). *Agricultural education and its role in rural employment in South Asia* (World Bank Research Report). World Bank.

Yadav, N., & Vatta, L. (2025). Perceptual analysis of diverse perspectives and desired proficiencies in 21st-century skills among college-going students. *Indian Journal of Extension Education, 61*(2), 91–95. https://doi.org/10.48165/IJEE.2025.61217