

Use of Social Media for Awareness and Promotion of Organic and Natural Farming Practices

Smita Singh¹, R.K. Doharey², N.R. Meena³

1. Ph.D Scholar, Department of Extension Education College of Agriculture ANDUA\$T
Kumarganj, Ayodhya, Uttar Pradesh, India

2. Professor, Department of Extension Education College of Agriculture ANDUA\$T Kumarganj,
Ayodhya, Uttar Pradesh, India

3. Assistant Professor, Department of Extension Education College of Agriculture ANDUA\$T
Kumarganj, Ayodhya, Uttar Pradesh, India

Corresponding author's email: smitasingh006007@gmail.com

ABSTRACT

Social media plays an increasingly important role in raising awareness and supporting sustainable agriculture practices in the digital age, especially in the area of organic and natural farming. This abstract examines how social media platforms are evolving and how they can be effective instruments for spreading knowledge, raising awareness, and creating a global community around environmentally friendly farming method.

Social media sites, like Facebook, Instagram, Twitter, and YouTube, are easily accessible and participatory tools that aid in the broad distribution of knowledge on natural and organic farming practices. Stakeholders in agriculture, such as farmers, researchers, NGOs, and governments, use these platforms to disseminate success stories, best practices, and scientific discoveries, adding to a body of knowledge that is available to a wide range of users. Social media's visual format is used to highlight the virtues of organic farming and to tell engaging stories that appeal to a wide range of users. Interesting content, such as infographics, films, and success stories, fosters a sense of community and shared responsibility while educating the public about the benefits of organic methods for the environment and human health. The use of social media as a tool for advocacy and awareness campaigns by influencers, agricultural specialists, and advocacy groups is further examined in the abstract. The dissemination of these messages is enhanced by cooperative projects and virtual gatherings, resulting in a cascade effect that cuts over regional and cultural divides.

Still, issues including false information, digital gaps, and the requirement for efficient interaction tactics are recognized. The abstract's conclusion highlights social media's potential to revolutionize global knowledge and adoption of organic and natural agricultural practices, and it urges coordinated efforts to use these platforms to advance sustainable agriculture around the globe.

INTRODUCTION

Social media has become a potent technology in recent years that has transformed information transmission, connectivity, and communication. It has affected practically every part of our life and changed the way we communicate with each other. The promotion of organic and natural agriculture methods is one area where social media has had a significant impact. In light of climate change and depleting natural resources, organic and natural farming practices—which seek to meet current food production needs while protecting the environment and guaranteeing the

welfare of future generations—have gained significant attention.

Social media platforms such as Facebook, Twitter, Instagram, and YouTube have become virtual hubs for sharing information, raising awareness, and fostering collaboration among individuals, communities, and organizations passionate about organic and natural agricultural practices. These platforms have the ability to connect farmers, researchers, policymakers, and consumers from all corners of the globe, facilitating the exchange of ideas, best practices, and success stories.

Social media serves as a medium for the diffusion of knowledge, which is one of the main ways it promotes sustainable agriculture practices. A multitude of information is available to farmers regarding cutting edge practices, crop rotation, organic farming, precision agriculture, and environmentally friendly irrigation systems. Through social media, farmers may interact with experts, become a member of farming groups, attend webinars, and hold discussions that aid in decision-making and the adoption of natural and organic agricultural techniques that are better for the environment and their long-term financial sustainability.

Moreover, social media has shown to be an effective lobbying tool for natural and organic farming methods. These platforms can be used by activists, non-profits, and environmentalists to spread the word about the value of organic and natural agricultural practices and the drawbacks of traditional ones. Social media may spark public interest, support, and even legislative changes that give sustainable agriculture first priority through gripping narratives, powerful images, and thought-provoking campaigns.

Social media has an impact on more than just activists and farmers; it also has a significant impact on how consumers behave. Food that is locally sourced, ethically made, and environmentally friendly is becoming more and more in demand from consumers. Social media platforms enable customers to become more knowledgeable about sustainable agriculture methods, establish connections with farmers and producers that use these methods, and make better food-related decisions. Social media users that value organic and natural farming techniques are forming a community by exchanging recipes, sustainable cooking advice, and personal stories.

Consequently, social media has become a potent tool for advancing natural and organic agricultural methods. Social media platforms facilitate the exchange of knowledge, advocacy, and consumer awareness, thereby creating a worldwide network of individuals and groups that can work

together, share knowledge, and effect positive change in the agriculture industry. Social media has a growing impact on the promotion of organic and natural farming techniques, and it has enormous potential to make food production more sustainable in the future.

The study explored and analysed the role of social media in promoting organic and natural agricultural practices. The study aimed to investigate the impact of social media platforms on knowledge dissemination, advocacy, and consumer behaviour related to organic and natural agricultural practices.

MATERIAL AND METHODS

Data Collection.

A. Social Media Platforms: Several well-known social media sites, including YouTube, Facebook, Instagram, and Twitter, were listed in detail as main sources of information.

B. Content Analysis: The social media information about organic and natural agriculture practices was examined using a methodical content analysis approach. Posts, articles, videos, and other pertinent media disseminated on the chosen sites have to be gathered and categorized.

C. Sampling: A purposive sampling technique was used to select relevant content based on specific keywords and hashtags related to organic and natural agricultural practices. The sampling process ensured a diverse range of geographical locations, farming practices, and target audiences.

Data Collection Procedures.

A. Identification and Extraction: Relevant posts and media content were identified through keyword searches, hashtags, and participation in farming communities and groups on social media platforms. Data extraction tools were used to gather the identified content.

B. Data Categorization: The collected data were categorized based on themes, including sustainable farming techniques, organic agriculture, conservation practices, policy discussions, success stories, and consumer engagement.

C. Data Analysis: Both qualitative and quantitative techniques were used to analyze the categorized data. Important themes, recurring motifs, and developing trends in the text were all identified through qualitative analysis. Examining engagement indicators like likes, shares, comments, and reach was part of the quantitative analysis. Using SPSS software version 24.0, the ANOVA test was used to analyse the data.

Ethical Consideration:

A. Data Privacy and Anonymity: All collected data were handled in accordance with privacy regulations and ethical guidelines. Personal information and identifying details of social media users were anonymized and kept confidential during the analysis.

B. Permission and Consent: Prior consent was obtained from social media users whose content was included in the study. Permissions were sought for the use of copyrighted materials, and appropriate attribution was provided.

RESULTS

The types of organic and natural farming agriculture content that were found on various social media platforms, included Facebook, Twitter, Instagram, and YouTube. The number of posts, tweets, images, and videos related to organic and natural farming agriculture were recorded for each platform. Facebook had the highest number of organic and natural farming agriculture posts with 96 ($p < 0.05$). In total, the study identified 208 instances of organic and natural farming agriculture content across all the platforms that were analysed. These findings suggested that social media, particularly Facebook, played a significant role in promoting organic and natural agricultural practices (Table 1). The engagement metrics for organic and natural agricultural practices content on various social media platforms, included Facebook, Twitter, Instagram, and YouTube. The metrics measured included the number of likes, shares, comments, and reach (impressions) received by the organic and natural farming agriculture content on each platform. On Facebook, the organic and natural

farming agriculture content garnered 418 likes, 386 shares, 78 comments, and reached approximately 13,221 impressions. These numbers indicated a significant level of engagement with the content on this platform ($p < 0.05$). Similarly, on Twitter, the sustainable agriculture content received 192 likes, 73 shares, 95 comments, and reached approximately 788 impressions. These engagement metrics also showed a significant level of user interaction ($p < 0.05$). Instagram exhibited high engagement as well, with the sustainable agriculture content receiving 532 likes, 47 shares, 43 comments, and reaching approximately 1,200 impressions. The low p -value of 0.00001 emphasized the significant level of user engagement on this platform. YouTube, although different in nature as a video-sharing platform, also showed notable engagement with sustainable agriculture content. The content received 328 likes, 166 shares, 15 comments, and reached approximately 6,202 impressions. There was a significant level of user interaction on YouTube ($p < 0.05$). Overall, the engagement metrics demonstrated that sustainable agriculture content generated substantial interest and participation across all the analysed social media platforms. The significant differences in engagement metrics among the platforms suggested that each platform had its own unique audience and user behaviour when it came to engaging with sustainable agriculture content (Table 2). An insight into the most common sustainable agriculture themes found on social media platforms. Among the listed themes, organic farming emerged as the most frequently discussed topic with a frequency of 78. This indicates a significant presence of content related to organic farming on social media platforms ($p < 0.05$). Nonetheless, the prominence of organic farming as a prevalent theme underscored its popularity and importance within the organic and natural agricultural practices discourse on social media (Table 3). Insights into the consumer perception of organic and natural agricultural practices on different social media platforms were recorded. The table presented the number of positive, neutral, and negative mentions related to sustainable agriculture on Facebook, Twitter, Instagram, and YouTube. On

Facebook, organic and natural agricultural practices received 185 positive mentions, 50 neutral mentions, and 75 negative mentions ($p < 0.05$). Twitter showed 105 positive mentions, 25 neutral mentions, and 56 negative mentions related to organic and natural agricultural practices ($p < 0.05$). Instagram had 15 positive mentions, 82 neutral mentions, and 18 negative mentions related to organic and natural agricultural practices ($p < 0.05$). On YouTube, organic and natural agricultural practices received 75 positive mentions, 750 neutral mentions, and 20 negative mentions. Low p-value ($p < 0.05$) for neutral mentions indicated a significant difference in

neutral consumer perception compared to the other platforms. In summary, the table highlights variations in consumer perception of organic and natural agricultural practices across different social media platforms. Facebook and Twitter demonstrate significant differences in positive, neutral, and negative consumer mentions, while Instagram and YouTube also exhibit significant differences in positive and negative mentions. These findings emphasized the role of social media platforms in shaping consumer perceptions of organic and natural agricultural practices (Table 4)

Table 1
Types of Organic and natural agricultural practices Content on Social Media Platforms

S.NO	Social Media Platform	Organic and natural agricultural practices Content	p-value
1.	Facebook	96 post	0.00001*(Significant)
2.	Twitter	32 tweets	
3.	Instagram	70 images	
4.	YouTube	10 videos	
	Total	208	

Table 2
Engagement Metrics for Organic and natural agricultural practices Content

Social Media Platform	Likes	Shares	Comment	Reach (Impression)
Facebook	418	386	78	13221
Twitter	192	73	95	788
Instagram	532	47	43	1200
You Tube	328	166	15	6202
p-value	0.00001*	0.00001*	0.00001*	0.00001*

*indicated the significant value at $p < 0.05$

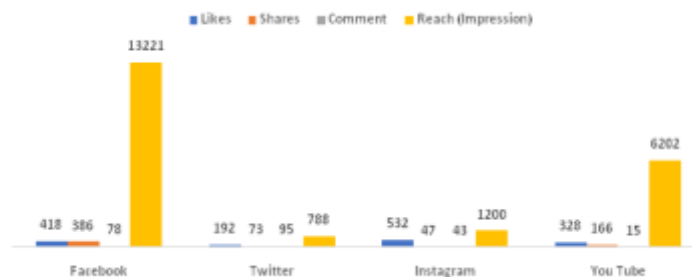


Table 3
Most Common Organic and natural agricultural practices Themes on Social Media Platforms

S. No	Theme	Frequency	p-value
1	Organic farming	78	0.00001*(Significant)
2	Permaculture Techniques	25	
3	Conservation practices	56	
4	Sustainable irrigation	42	
5	Crop rotation	20	
6	Community-supported farming	33	

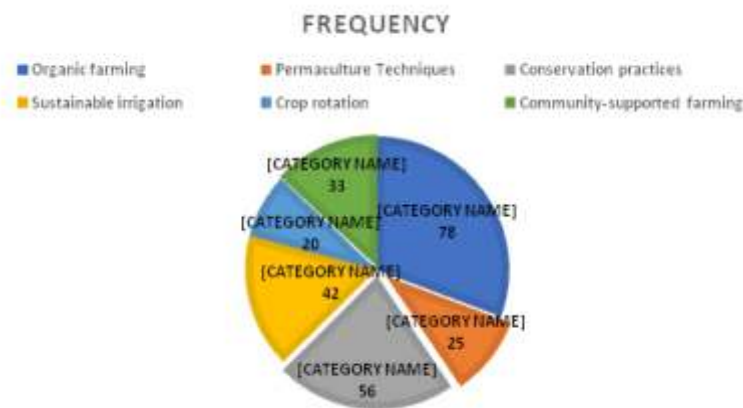
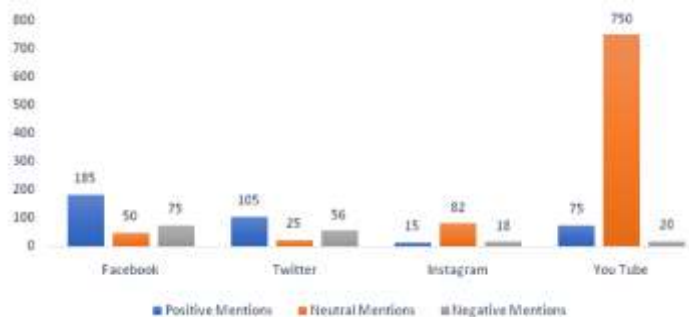


Table 4
Consumer Perception of Organic and natural agricultural practices on Social Media

Social Media Platform	Positive Mentions	Neutral Mentions	Negative Mentions
Facebook	185	50	75
Twitter	105	25	56
Instagram	15	82	18
You Tube	75	750	20
p-value	0.00001*	0.00001*	0.00001*

*indicated the significant value at $p < 0.05$



DISCUSSION

The study's conclusions shed important light on how social media may support organic and natural farming methods. Analyzing content from well-known social media sites including Facebook, Twitter, Instagram, and YouTube was part of the data collection process. The findings disclosed the kinds of material related to organic and natural farming techniques that were available on various platforms, along with the associated engagement metrics and customer perceptions. Facebook was found to be the platform where organic and natural agriculture practices were most frequently posted, suggesting that the social media site plays a major role in encouraging sustainable farming methods. Likes, shares, comments, and reach were among the engagement metrics that showed a significant amount of user interaction with information about organic and natural agriculture techniques across all platforms. Facebook, Twitter, Instagram, and YouTube each displayed significant levels of engagement, highlighting the effectiveness of social media in generating interest and participation in organic and natural agricultural practices topics. Further more, the analysis of common organic and natural agricultural practices themes indicated that organic farming emerged as the most frequently discussed topic across social media platforms. This suggested a strong emphasis on organic farming practices within the organic and natural agricultural practices discourse on social media. The popularity of organic farming aligned with the increasing global trend towards environmentally friendly and health-conscious agricultural practices. The study also examined consumer perceptions of sustainable agriculture on social media. The results revealed variations in positive, neutral, and negative mentions across different platforms. Facebook and Twitter demonstrated significant differences in consumer mentions across all three categories, while Instagram and YouTube showed significant differences in positive and negative mentions. These results highlighted the impact of social media platforms on how consumers see natural and organic farming methods. The social media

platforms have the ability to promote organic and natural agricultural methods due to the substantial presence of sustainable agriculture information, strong engagement metrics, and differences in consumer views. Social media gave farmers, groups, legislators, and consumers a forum to exchange knowledge, have conversations, and spread awareness about conservation efforts, sustainable agricultural methods, and legislative issues. It enabled the dissemination of success stories, consumer engagement, and the exchange of knowledge and experiences among a diverse range of users. However, it is important to acknowledge that social media platforms also had limitations and challenges. The study considered ethical considerations by handling data privacy and anonymity in accordance with regulations and obtaining consent from users whose content was included. Nonetheless, the potential for misinformation, biased content, and the need for fact-checking should be considered when interpreting information on social media. This study highlighted the significant role that social media played in promoting organic and natural agricultural practices. The findings underscored the importance of platform like Facebook, Twitter, Instagram, and YouTube in disseminating sustainable agriculture content, engaging users, and shaping consumer perceptions. Understanding and harnessing the power of social media could contribute to the advancement of sustainable agriculture by facilitating knowledge sharing, promoting best practices, and fostering a community of stakeholders dedicated to organic and natural agricultural practices.

CONCLUSION

The study's conclusions showed how important it is for social media sites like Facebook, Instagram, YouTube, and Twitter to support organic and natural farming methods. The data analysis showed that there was a significant amount of content about sustainable agriculture available on these platforms, along with a wide range of customer perceptions and strong levels of user involvement. The most talked-about topic was

organic farming, indicating how popular it is in the conversation about natural and organic agriculture techniques on social media. The study highlighted how social media may be used to spread knowledge, start conversations, and influence consumers' opinions about sustainable agriculture. Through

knowledge sharing, awareness-raising, and the development of a community of stakeholders dedicated to organic and natural agricultural practices, an understanding of and effective use of social media may support the progress of organic and natural agricultural methods.

REFERENCES

- Kapoor, K.K., Tamilmani, K., Rana, N.P. et al. *Advances in Social Media Research: Past, Present and Future*. *Inf Syst Front.* 2018;20:531–558.
- Abbas J, Aman J, Nurunnabi M, Bano S. The Impact of Social Media on Learning Behaviour for Sustainable Education: Evidence of Students from Selected Universities in Pakistan. *Sustainability.* 2019; 11(6):1683.
- Allam Z, Sharifi A, Bibri SE, Jones DS, Krogstie J. The Metaverse as a Virtual Form of Smart Cities: Opportunities and Challenges for Environmental, Economic, and Social Sustainability in Urban Futures. *Smart Cities.* 2022; 5(3):771-801.
- Calicioglu O, Flammini A, Bracco S, Bellù L, Sims R. The Future Challenges of Food and Agriculture: An Integrated Analysis of Trends and Solutions. *Sustainability.* 2019; 11(1):222.
- Onitsuka K. How Social Media Can Foster Social Innovation in Disadvantaged Rural Communities. *Sustainability.* 2019; 11(9):2697.
- Ihsaniyati H, Sarwoprasodjo S, Muljono P, Gandasari D. The Use of Social Media for Development Communication and Social Change: A Review. *Sustainability.* 2023; 15(3):2283.
- Saiz-Rubio V, Rovira-Más F. From Smart Farming towards Agriculture 5.0: A Review on Crop Data Management. *Agronomy.* 2020; 10(2):207.
- Dhanaraju M, Chenniappan P, Ramalingam K, Pazhanivelan S, Kaliaperumal R. Smart Farming: Internet of Things (IoT)-Based Sustainable Agriculture. *Agriculture.* 2022; 12(10):1745.
- Rizos V, Behrens A, Van der Gaast W, Hofman E, Ioannou A, Kafyeke T, Flamos A, Rinaldi R, Papadelis S, Hirschnitz-Garbers M, et al. Implementation of Circular Economy Business Models by Small and Medium-Sized Enterprises (SMEs): Barriers and Enablers. *Sustainability.* 2016; 8(11):1212.
- Mavrodieva AV, Rachman OK, Harahap VB, Shaw R. Role of Social Media as a Soft Power Tool in Raising Public Awareness and Engagement in Addressing Climate Change. *Climate.* 2019; 7(10):122.
- Söderholm, P. The green economy transition: the challenges of technological change for sustainability. *Sustain Earth.* 2020; 3:6.
- Fallah Shayan N, Mohabbati-Kalejahi N, Alavi S, Zahed MA. Sustainable Development Goals (SDGs) as a Framework for Corporate Social Responsibility (CSR). *Sustainability.* 2022; 14(3):1222.
- Deo K, Prasad AA. Evidence of Climate Change Engagement Behaviour on a Facebook Fan-Based Page. *Sustainability.* 2020; 12(17):7038.
- Janker J, Mann S, Rist S. What is Sustainable Agriculture? Critical Analysis of the International Political Discourse. *Sustainability.* 2018; 10(12):4707.
- Sun Y, Xing J. The Impact of Social Media Information Sharing on the Green Purchase Intention among Generation Z. *Sustainability.* 2022; 14(11):6879.
- Serebrennikov D, Thorne F, Kallas Z, McCarthy SN. Factors Influencing Adoption of Sustainable Farming Practices in Europe: A Systemic Review of Empirical Literature. *Sustainability.* 2020; 12(22):9719.
- Gelinas L, Pierce R, Winkler S, Cohen IG, Lynch HF, Bierer BE. Using Social Media as a Research Recruitment Tool: Ethical Issues and Recommendations. *Am J Bioeth.* 2017 Mar; 17(3):3-14.
- Inegbedion H, Inegbedion E, Asaleye A, Obadiaru E, Asamu F. Use of social media in the marketing of agricultural products and farmers' turnover in South-South Nigeria. *F1000Res.* 2021 Mar 12; 9:1220.

.....