

**Bridging the Sustainability Communication Gap:
Comparing Small Farm and Consumer Sustainability Messages on X**

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Introduction

Small farms play an important role in resilient, inclusive, and sustainable food systems, yet many face barriers to market access, consumer engagement, and digital communication. These barriers are especially important for small-scale and historically underserved agricultural producers, who may have limited access to marketing infrastructure, digital tools, and consumer education channels. Although consumer interest in local, organic, and sustainably produced foods creates market opportunities, consumers may not always understand how to identify, access, or support farms using sustainable practices. However, limited research has examined whether and how small farms and consumers differ in sustainability communication on social media. Addressing this gap can help small farms develop consumer-centered messages that improve sustainability literacy and strengthen farmer-consumer relationships.

Digital platforms allow farms to communicate directly with consumers, share farm stories, explain sustainable practices, and build trust. Prior research emphasizes the importance of clear, transparent, and consumer-centered sustainability communication in shaping consumer understanding and engagement (Borges et al., 2023). Agricultural communication research also shows that limited producer-consumer interaction can contribute to misconceptions about agriculture and sustainability (Gibson et al., 2020). Therefore, the purpose of this study was to compare how small farms and consumers communicate sustainability on X and identify guidance for improving small-farm communication and food-system sustainability literacy.

Conceptual/Theoretical Framework

This study was guided by the triple bottom line framework, which conceptualizes sustainability across environmental, social, and economic dimensions (Elkington, 1997). This framework was appropriate because it allowed sustainability communication to be examined beyond environmental claims alone. Environmental sustainability included climate, soil health, water, biodiversity, waste, crop health, regenerative agriculture, conservation practices, and animal welfare. Social sustainability included community, education, food safety, wellness, equity, advocacy, consumer behavior, and knowledge sharing. Economic sustainability included affordability, farm viability, market access, profitability, costs, business survival, and local economic support. Combined with sustainability communication literature, the framework provided a deductive structure for examining sustainability topics and framing differences.

Methodology

This study used comparative qualitative content analysis with a netnographic orientation. Netnography is appropriate for examining naturally occurring online communication because it enables researchers to analyze meanings, symbols, and communication patterns within digital communities (Kozinets, 2002). Public X posts were collected using sustainability-related keywords and hashtags identified through preliminary searches of farmer- and consumer-oriented sustainability conversations. Keywords included sustainable agriculture, sustainable farming, regenerative agriculture, sustainable food, sustainable living, sustainable cooking, and related hashtags.

Data were extracted using Apify, which automated keyword/hashtag searches, scrolling and pagination through X search results, public post capture, and post-level export. Extracted information included post text, date, URL, available engagement fields, keyword/hashtag source,

and preliminary user-category classification. The final dataset included 2,170 public X posts posted between May 15, 2023, and January 14, 2026. After screening and standardizing user-category labels, 1,770 posts were categorized as consumer posts and 400 as small-farm posts.

The dataset was imported into NVivo for qualitative coding and thematic analysis. The analysis followed a theory-informed thematic approach, using the triple bottom line framework as the deductive coding guide and refining subthemes inductively based on repeated patterns. Thematic analysis is appropriate for identifying, analyzing, and reporting patterns across qualitative data (Braun & Clarke, 2006). Posts were coded for primary, secondary, and, when applicable, tertiary themes. Because posts could contain multiple themes, percentages represent the proportion of posts containing each theme and do not sum to 100%.

Results/Findings

Findings showed that consumers and small farms both discussed sustainability, but framed it differently. Consumer posts most often framed sustainability as public information, social concern, personal values, lifestyle, or advocacy. Among consumer posts, 32.7% included general information sharing, 24.5% included environmental concern, 14.6% included opinion-based statements, 13.7% included social concern, and 11.5% included advocacy or calls to action. These results suggest that consumer sustainability communication often connects sustainability to values, public concern, wellness, lifestyle, and collective action.

Small-farm posts were more practice-based and production-oriented. Among small-farm posts, 33.2% included environmental concern, 25.5% included information sharing, 21.0% included education or peer learning, 16.2% included animal welfare, and 12.2% included entertainment or engagement-oriented content. Compared with consumers, small farms more frequently emphasized environmental stewardship, animal care, soil and crop health, and educational content. However, economic sustainability was less evident in small-farm posts. Only 1.2% included explicit economic concern, compared with 5.8% of consumer posts.

Overall, results indicate a framing gap between small-farm and consumer sustainability communication. Consumers tended to communicate sustainability through broad values and social meanings, while small farms tended to communicate sustainability through farm practices and stewardship.

Conclusions and Implications

The findings suggest that the communication gap is not simply a lack of interest in sustainability. Rather, it reflects differences in communication framing. Small farms often communicate what they do, such as sustainable farming practices, soil care, animal welfare, or crop production. Consumers often communicate why sustainability matters to them, including health, lifestyle, environmental protection, affordability, social values, and collective responsibility. As a result, farm messages may not fully connect production-based practices to the meanings consumers use when discussing sustainable food systems.

This study offers implications for agricultural education, Extension, and small-farm digital marketing. Small farms may strengthen sustainability communication by translating farm practices into consumer-relevant benefits and communicating all three dimensions of sustainability more explicitly. Digital communication training should help farmers use message framing, storytelling, transparent explanations, and platform-specific strategies to connect sustainability practices with consumer values. These findings contribute to food-system sustainability literacy and offer guidance for improving farmer-consumer communication in sustainable agriculture.

References

- Borges, E., Campos, S., Teixeira, M. S., Lucas, M. R., Ferreira-Oliveira, A. T., Rodrigues, A. S., & Vaz-Velho, M. (2023). How do companies communicate sustainability? A systematic literature review. *Sustainability*, 15(10), Article 8263. <https://doi.org/10.3390/su15108263>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st-century business*. Capstone.
- Gibson, K. E., Lamm, A. J., Lamm, K. W., & Warner, L. A. (2020). Communicating with diverse audiences about sustainable farming: Does rurality matter? *Journal of Agricultural Education*, 61(4), 156–174. <https://doi.org/10.5032/jae.2020.04156>
- Kozinets, R. V. (2002). The field behind the screen: Using netnography for marketing research in online communities. *Journal of Marketing Research*, 39(1), 61–72. <https://doi.org/10.1509/jmkr.39.1.61.18935>