Farmers' Information Behavior in Georgia in the Context of Agricultural and Environmental Media Coverage

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Abstract

This study examines farmers' information behavior in Georgia in the context of agricultural and environmental media coverage. The research aims to identify the primary sources of information used by farmers, assess the perceived usefulness of mediated agricultural content, explore barriers to information access and application, and analyze how received information is translated into farming practice. The study is based on a quantitative field survey conducted across all regions of Georgia. A total of 365 respondents, including both family-based and business-oriented farmers, were interviewed using a structured questionnaire through face-to-face data collection. Cluster sampling was applied to ensure regional representation. In minority-populated areas, interviews were conducted in Azerbaijani and Armenian; 7% of respondents represent ethnic minority communities.

The findings indicate that farmers utilize information in diverse ways, including improving crop yield and product quality, adopting eco- and bio-friendly practices, enhancing beekeeping methods, reducing production costs, and experimenting with new agricultural techniques. At the same time, a segment of respondents demonstrates skepticism toward media-based information, while others express willingness to apply knowledge in the future. The results highlight the importance of targeted, accessible, and culturally sensitive agricultural communication strategies to enhance knowledge transfer and practical implementation in the farming sector.

Introduction

Access to reliable and actionable information is a critical factor in the sustainability and competitiveness of contemporary agriculture. In transitional and developing contexts, where smallholder and family-based farming remain dominant, information flows significantly influence decision-making, innovation adoption, and risk management. The concept of *information behavior*—which encompasses how individuals seek, evaluate, interpret, and use information—provides an important analytical lens for understanding how farmers engage with agricultural knowledge systems (Wilson, 2000). In rural environments, information behavior is shaped not only by availability of content but also by trust, accessibility, socio-cultural context, and perceived relevance.

Agricultural knowledge transfer has traditionally relied on extension services, peer networks, and experiential learning. However, in recent decades, media platforms—television, radio, online outlets, and social media—have increasingly become mediators of agricultural and environmental knowledge. Research on rural communication emphasizes that the effectiveness of mediated information depends on clarity, localization, cultural sensitivity, and perceived credibility (Leeuwis & Aarts, 2011). Media-based agricultural communication can support innovation diffusion, environmental awareness, and sustainable farming practices, yet its impact varies depending on farmers' trust in media and their readiness to translate information into practice.

Trust in media represents a particularly significant factor in post-transition societies. Media trust influences not only whether information is consumed, but also whether it is considered reliable enough to inform economic decisions. Studies in communication research suggest that perceived credibility and practical applicability strongly affect behavioral outcomes (Tsfati & Cappella, 2003). In agricultural contexts, where implementation of new knowledge may involve financial risk, skepticism toward media information may limit adoption even when content is accessible.

Within the Georgian context, agricultural communication operates in a complex environment characterized by regional diversity, multilingual communities, and a significant proportion of small-scale farming. The development of constructive approaches to agro-journalism has been emphasized in recent Georgian scholarship. Kuprashvili and Chalagandze (n.d.) introduce the concept of *constructive agro-journalism*, which highlights solution-oriented reporting, practical guidance, and the translation of expert knowledge into accessible formats for farmers. This framework suggests that agricultural media should not merely inform but actively facilitate problem-solving and sustainable development. Constructive agro-journalism thus aligns with broader theories of knowledge transfer and participatory communication, emphasizing the role of media as an intermediary between scientific expertise and rural practice.

Despite growing attention to agricultural media content, limited empirical research has examined how Georgian farmers actually engage with such information, how they evaluate its usefulness, and whether it influences farming practices. Understanding farmers' information behavior at a national level is particularly important in light of environmental challenges, market volatility, and the need for sustainable agricultural transformation.

This study therefore investigates farmers' information behavior in Georgia in the context of agricultural and environmental media coverage. Specifically, it aims to identify the primary sources of information used by farmers, assess the perceived usefulness of mediated content, explore barriers to information access and application, and examine how received information is implemented in agricultural practice.

The primary aim of this study is to examine farmers' information behavior in Georgia within the context of agricultural and environmental media coverage. The research seeks to identify the main sources of information used by farmers, assess how they evaluate the usefulness of mediated agricultural content, explore barriers that may hinder access to or application of such information,

and analyze the extent to which received knowledge is translated into practical farming activities.

To achieve this objective, the study is guided by the following research questions:

RQ1: What information sources do farmers in Georgia rely on for agricultural and environmental topics?

RQ2: How do farmers assess the usefulness and credibility of media-based agricultural information?

RQ3: What barriers affect farmers' access to, understanding of, or implementation of such information?

RQ4: In what ways is mediated agricultural knowledge applied in farming practice?

The study is based on a quantitative field research design. Data were collected through a structured questionnaire administered via face-to-face interviews. A cluster sampling method was employed to ensure geographic representation across all regions of Georgia. The final sample consists of 365 respondents, including both family-based farmers and individuals engaged in business-oriented agricultural activities.

To ensure inclusivity and representation of diverse communities, the research also covered minority-populated regions. Interviews in these areas were conducted in Azerbaijani and Armenian languages. Ethnic minority respondents constitute 7% of the total sample.

The structured questionnaire included sections addressing information sources, perceived usefulness of agricultural media content, levels of trust, barriers to implementation, and reported practical outcomes resulting from received information. The collected data were analyzed using descriptive statistical methods to identify patterns in information behavior and practical application.

This methodological approach enables a comprehensive national-level assessment of how farmers interact with agricultural and

environmental information and provides empirical evidence for evaluating the role of media in rural knowledge transfer.

Results

Respondent Profile

The study sample consists of 365 respondents representing farmers from all regions of Georgia. Both family-based farmers and individuals engaged in business-oriented agricultural activities were included in the survey. The sampling design ensured geographic representation through cluster sampling.

The research also incorporated minority-populated areas, where interviews were conducted in Azerbaijani and Armenian languages to ensure inclusivity. Ethnic minority respondents constitute 7% of the total sample. This linguistic adaptation allowed for broader representation of rural communities and minimized potential communication barriers during data collection.

The sample reflects the structural diversity of Georgian agriculture, where smallholder and family-based farming coexist with more commercially oriented agricultural enterprises. This diversity provides a relevant foundation for analyzing differences in information behavior and media engagement across farming types.

Information Sources

To identify the primary channels through which farmers receive agricultural and environmental information, respondents were asked to select all applicable sources.

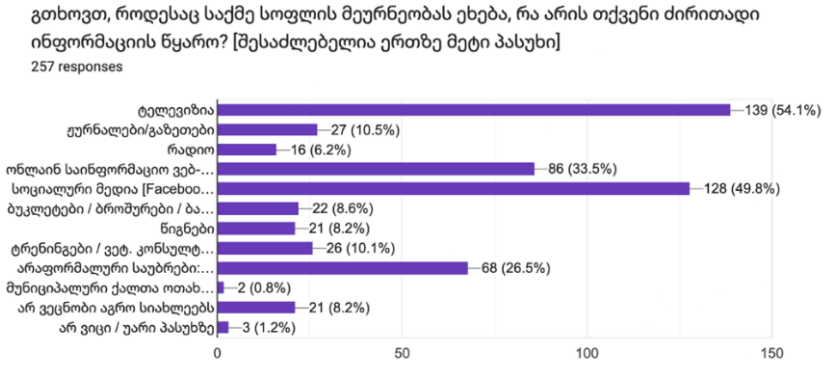
As shown in Figure 1, television remains the most frequently cited source of information, selected by 54.1% of respondents (n = 139). Social media platforms, including Facebook and other online networks, were reported by 49.8% (n = 128) of participants, indicating a strong presence of digital communication channels in rural information environments.

Online informational websites were mentioned by 33.5% of respondents (n = 86), while 26.5% (n = 68) identified informal

communication networks—such as acquaintances and community members—as relevant sources.

Other channels, including journalists/bloggers (10.5%, n = 27), training sessions and consultations (10.1%, n = 26), and radio (6.2%, n = 16), were reported less frequently. Printed materials and brochures accounted for 8.6% (n = 22), while books were mentioned by 8.2% (n = 21). A small proportion of respondents indicated that they do not receive agricultural information (8.2%, n = 21), and 1.2% (n = 3) reported not trusting or not using any information sources.

These results suggest a mixed information ecosystem in which traditional broadcast media and digital platforms coexist with interpersonal communication channels. Television remains dominant; however, nearly half of the respondents actively engage with social media for agricultural knowledge.

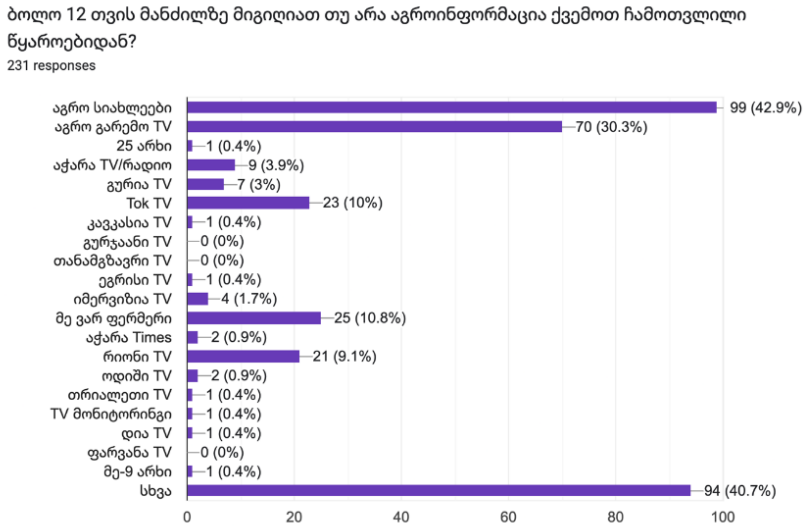


Media Outlets Followed by Farmers

When asked which specific media outlets they had followed during the past 12 months for agricultural information, respondents most frequently identified Agro Siaxleebi (42.9%, n = 99) and the Public Broadcaster (30.3%, n = 70). In addition, 40.7% of participants (n = 94) selected the category “Other,” indicating that a substantial share of farmers rely on additional, non-listed sources for agricultural content. Among regional and thematic broadcasters, TOK TV was

mentioned by 10% (n = 23), while “Me Var Fermeri” was cited by 10.8% (n = 25), and Rioni TV by 9.1% (n = 21).

Other television channels were referenced less frequently, each accounting for a relatively small proportion of responses. The distribution suggests that while nationally recognized and specialized agricultural media outlets occupy a central role in information dissemination, farmers’ media consumption patterns remain fragmented and diversified. The notable share of “Other” responses further indicates the presence of a broader and potentially informal media ecosystem influencing agricultural information flows.

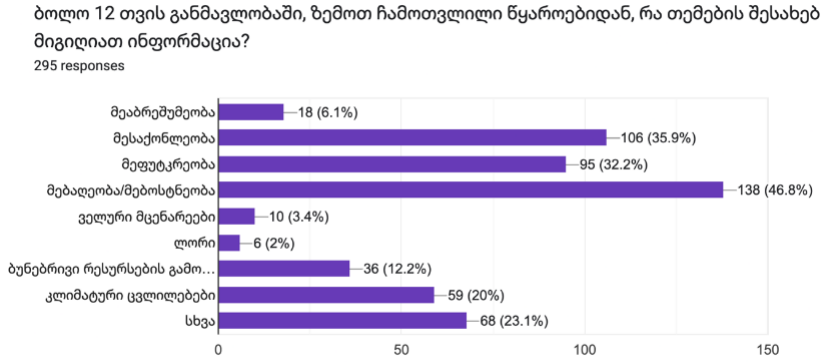


Thematic Popularity of Agricultural Content

Respondents were also asked to identify which agricultural topics they had followed most frequently during the past 12 months (Figure 3). The most popular thematic area was crop care and production (46.8%, n = 138), followed by livestock and animal husbandry (35.9%, n = 106) and beekeeping (32.2%, n = 95). These findings indicate that content directly related to productivity and core farming activities attracts the greatest attention among respondents.

Other thematic areas were mentioned less frequently. Climate-related issues were selected by 20% of respondents (n = 59), while pest and disease management accounted for 12.2% (n = 36). Market-related topics were cited by 6.1% (n = 18), veterinary issues by 3.4% (n = 10), and irrigation by 2% (n = 6). A notable 23.1% (n = 68) selected “Other,” suggesting interest in additional specialized or locally relevant agricultural topics not listed in the predefined categories.

Overall, the distribution of thematic preferences demonstrates that farmers primarily engage with practical, production-oriented information, while structural or market-related themes receive comparatively lower attention. The presence of climate-related interest, however, indicates emerging awareness of environmental factors affecting agricultural sustainability.



Effects and Practical Impact of Media-Based Agricultural Information

Respondents were asked whether information received through media sources had any practical impact on their agricultural production. As illustrated in Figure 4, more than half of respondents (53.4%) reported that media-based information had positively influenced their production outcomes. Conversely, 36.5% indicated that it had not had a noticeable impact, while 10% stated that they did not know or were uncertain.

To further assess perceived effectiveness, respondents were asked to evaluate the usefulness of the information on a five-point scale (1 = no benefit at all; 5 = absolutely beneficial). The results demonstrate generally positive evaluations: 36% rated the information as “highly beneficial,” while 21.8% selected level 2 and 20.1% level 3. A smaller proportion assigned level 4 (11.7%) or level 5 (10.5%). Overall, the distribution suggests that while the majority of farmers perceive at least moderate benefit from media-based agricultural information, the intensity of perceived usefulness varies.

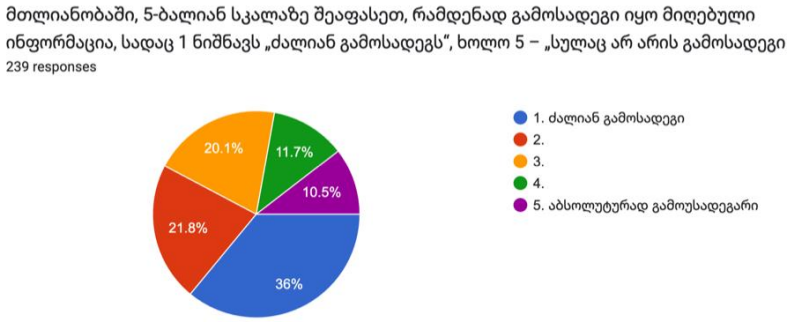
Beyond general perceptions, respondents provided concrete examples of how they applied acquired knowledge in practice. The most frequently reported and significant effect was increased productivity and improved product quality. Farmers described how specific recommendations—particularly regarding pruning techniques, irrigation methods, fertilizer use, and bio-preparations—directly translated into measurable improvements in yield and crop condition.

Several respondents emphasized quantitative and qualitative gains. As one farmer stated, “I received a larger harvest than before.” Another reported, “The quality of my produce improved—my blueberries became larger and sweeter.” Others highlighted technical adjustments: “After applying the correct pruning methods, I obtained significantly more fruit,” and “The soil was less damaged, and overall productivity increased.” These testimonies indicate that media-based agricultural guidance is not merely theoretical but often operationalized through specific changes in farming techniques.

In addition to yield growth, farmers reported extended flowering and fruiting periods, more efficient resource management, and improved soil health. The emphasis on bio-preparations and sustainable techniques also suggests alignment between media messaging and environmentally conscious farming practices.

Taken together, these findings demonstrate that media-based agricultural information can function as a catalyst for incremental innovation in farming practices. While not all respondents reported direct impact, a majority indicated tangible benefits, particularly in

relation to productivity and quality enhancement. The integration of specific technical advice into everyday agricultural routines reflects a practical dimension of information behavior, where mediated knowledge becomes embedded in hands-on farming activity.



Strengthening of Ecological and Bio-Based Practices

A significant proportion of respondents reported that media-based agricultural information contributed to the adoption and strengthening of ecological and bio-oriented farming practices. Farmers indicated that they had learned and implemented techniques such as the use of bio-fertilizers, composting, bio-preparations, and the reduction of chemical inputs.

The reported effects of these changes were both environmental and economic. Respondents emphasized reduced side effects on crops, improved soil protection, and the production of environmentally friendly agricultural products. Several farmers described tangible transitions in their production processes. One participant noted, “The use of bio-fertilizers strengthened my plants and reduced the need for chemicals.” Another explained, “Composting waste reduced costs and made the product healthier.” These statements illustrate how environmental awareness translated into practical action.

In addition to soil and crop improvements, some farmers reported acquiring skills in waste composting, plant disease prevention, and

pest control. The application of these practices suggests that bio-production is increasingly perceived not merely as a trend but as a viable economic strategy. As one respondent reflected, “The knowledge I received helped me avoid mistakes that were causing losses every year.” This indicates that ecological adjustments are closely tied to economic resilience.

Improvement in Beekeeping Practices

Beekeeping emerged as one of the most dynamic areas in which farmers rapidly applied media-based knowledge. Respondents frequently mentioned improvements in managing bee diseases, protecting hives, proper honey extraction, colony multiplication, and protection against invasive pests such as the brown marmorated stink bug.

Several testimonies reflect the immediacy of the impact. One beekeeper stated, “My bee colonies no longer collapse—I learned proper prevention techniques.” Another highlighted the practical value of targeted information, describing media guidance as “life-saving content” for beekeepers. The language used by respondents underscores the high stakes associated with apiculture, where disease outbreaks or improper hive management can result in significant losses.

The responsiveness observed in this sector suggests that where information is highly specialized, actionable, and directly linked to observable risks, adoption tends to occur more rapidly. Beekeeping thus represents a clear example of how media can function as a direct intervention tool within agricultural sub-sectors.

Cost Reduction and Workload Optimization

Beyond productivity and ecological practices, respondents also emphasized economic efficiencies achieved through the application of acquired knowledge. Farmers reported reduced production costs, simplified work processes, and avoidance of unnecessary expenditures.

For example, one participant explained, “In some cases, I avoided unnecessary expenses.” Another stated, “It simplified my farming work and reduced costs.” Others described more specific adjustments: “Certain types of feed grass turned out to be more budget-friendly for livestock.” These examples indicate that media-based information contributed not only to technical improvements but also to more strategic resource allocation.

The economic dimension of these outcomes is particularly important in smallholder contexts, where even incremental savings can significantly influence household stability. The findings suggest that farmers evaluate information not solely in terms of innovation but also in relation to cost-benefit calculations.

Experimentation with New Plants and Methods

The survey results also reveal a degree of openness toward experimentation and innovation. Farmers reported initiating new practices such as plant propagation through cuttings, cultivation of new varieties, berry crop management, greenhouse optimization, and even the maintenance of tropical and alpine flowers.

One respondent stated, “Now I propagate strawberry seedlings myself—I no longer need to purchase them.” Another remarked, “I learned effective greenhouse flower management, and it simplified my business.” These testimonies suggest that when knowledge is perceived as practical and replicable, it can stimulate entrepreneurial behavior and diversification.

The willingness to experiment demonstrates an emerging innovation-oriented mindset among a segment of farmers, particularly where information is accessible and clearly demonstrated.

Traditionalist and Skeptical Segment

Despite these positive outcomes, the data also reveal the presence of a traditionalist segment that remains cautious or skeptical toward media-based agricultural advice. Some respondents expressed preference for inherited knowledge and long-established practices. Statements such as “I am afraid of innovations; I never use them,” “I

do what my father and grandfather did," and "Everything I know comes from my grandfather" reflect a strong reliance on intergenerational transmission of knowledge.

However, even within this group, subtle shifts were observable. One respondent admitted, "I used to do only what I learned from my grandfather, but it turned out that there are easier methods." This indicates that skepticism does not necessarily equate to complete resistance, but rather suggests that trust-building and contextualization are critical.

Potential Early Adopters

Finally, a portion of respondents indicated that although they had not yet applied the received information, they recognized its potential value. These participants described themselves as observing, evaluating, or waiting for appropriate conditions before implementation. This group represents a potential pool of early adopters, particularly if information is delivered in simplified, practice-oriented formats.

Overall, the findings demonstrate that media-based agricultural information has multifaceted practical effects, ranging from productivity gains and ecological transformation to economic optimization and sector-specific resilience. While adoption is not universal, the data suggest that when information is perceived as credible, applicable, and economically rational, it is likely to be integrated into farming routines.

Conclusion and Recommendations

This study examined farmers' information behavior in Georgia in the context of agricultural and environmental media coverage. The findings demonstrate that farmers operate within a hybrid information ecosystem, combining traditional interpersonal knowledge networks with mediated communication channels such as television, social media, and online platforms. Television remains a dominant source, yet digital platforms increasingly shape rural information flows.

More than half of respondents reported a positive practical impact of media-based agricultural information on their production outcomes. The most frequently observed effects include increased crop yield, improved product quality, strengthened ecological and bio-based practices, enhanced beekeeping management, reduced production costs, and experimentation with new cultivation methods. These outcomes indicate that agricultural media content, when perceived as credible and actionable, can contribute to incremental innovation and economic efficiency within rural communities.

At the same time, the findings reveal differentiated adoption patterns. While many farmers actively integrate new knowledge into practice, a traditionalist segment remains cautious, relying primarily on inherited methods and experiential learning. Another group acknowledges the potential value of mediated information but has not yet implemented it, representing potential early adopters. These variations underscore that access to information alone does not guarantee behavioral change; trust, contextual relevance, and economic feasibility remain decisive factors.

The results also highlight the importance of ecological awareness. The adoption of composting, bio-fertilizers, and reduced chemical use demonstrates growing alignment between agricultural media messaging and sustainable production practices. In sectors such as beekeeping, media-based information appears particularly impactful, functioning as an immediate and practical intervention tool.

Based on these findings, several recommendations can be formulated:

1. **Strengthen Constructive Agro-Journalism Approaches.** Media content should remain solution-oriented, practice-based, and locally contextualized. Translating expert knowledge into clear, step-by-step guidance increases the likelihood of adoption.

2. **Enhance Trust-Building Strategies.** To reach skeptical and traditionalist farmers, communication should incorporate testimonials, field demonstrations, and peer validation. Trust can be reinforced through consistent, evidence-based reporting.

3. **Promote Multilingual and Inclusive Communication.** Given the linguistic diversity of rural Georgia, continued adaptation of content into minority languages is essential for equitable knowledge dissemination.

4. **Increase Practical Demonstration Formats.** Visual and demonstration-based content—such as instructional videos and real-life case examples—may enhance comprehension and reduce perceived implementation risks.

5. **Support Innovation-Oriented Segments.** Farmers expressing willingness to experiment represent a key leverage point for accelerating sustainable agricultural transformation.

In conclusion, media-based agricultural communication in Georgia demonstrates measurable practical relevance. While its impact is neither uniform nor automatic, the evidence suggests that when information is accessible, credible, and economically meaningful, it becomes embedded in everyday farming practice. Strengthening constructive, trust-based, and context-sensitive agricultural journalism can therefore play a strategic role in supporting rural resilience and sustainable development.

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