Cotton Conversations: Texas High Plains Growers' Approach to Communication about VSP Enrollment

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Introduction/Need for Research

Consumers are placing an increasing priority on sustainability, raising demand for sustainable cotton products (Frey et al., 2023; Reichheld et al., 2023; White et al., 2019). This shift drove the creation of voluntary sustainability programs (VSPs) that promote sustainability through producer incentives (Dairy Management Inc., 2024; Integrity Beef Alliance, 2024; U.S. Cotton Trust Protocol, 2023). The Texas High Plains, a major cotton-producing region, is central to this discussion as growers navigate the challenges and opportunities of sustainability while maintaining economic viability (Kitten et al., 2024; Plains Cotton Growers, 2024a). As VSPs gain traction, understanding how Texas High Plains cotton growers approach conversations about these programs is essential for informing agricultural communication strategies. This study explores growers' perspectives on VSPs, providing insights for enhanced adoption and improved effectiveness of messaging. The following question guided this research: How do Texas High Plains cotton growers think about enrollment in VSPs?

Theoretical/Conceptual Framework

This study applies a social marketing approach, integrating Diffusion of Innovations theory (Rogers, 2003) and the Theory of Planned Behavior (Ajzen, 1991) to understand how Texas High Plains cotton growers consider enrolling in VSPs. Social marketing, which promotes behavior change through audience insights (Lee & Kottler, 2020) is relevant for encouraging VSP adoption. Diffusion of Innovations explains how new practices spread, highlighting how growers assess VSPs based on their perceived benefits, barriers, and decision-making processes (Rogers, 2003). The Theory of Planned Behavior considers how attitudes, subjective norms, and perceived behavioral control shape growers' enrollment decisions (Ajzen, 1991). Together, these frameworks identify key adoption factors, informing targeted messaging to increase grower enrollment and participation in the programs.

Methodology

This study used a convergent parallel mixed methods approach to understand how Texas High Plains cotton growers think about enrolling in VSPs (Creswell & Plano Clark, 2018). Data were collected through 30 sessions, each including a pilesorting activity, a think-aloud exercise, and a questionnaire. In the pilesorting activity (Hundemer & Monroe, 2021), the participants were asked what advice they would give another grower considering joining a VSP and sorted a series of pre-determined statements into categories of their choice. The sample, obtained through snowball sampling, consisted mainly of experienced, college-educated, white male growers primarily from the Texas High Plains region. Cotton was the dominant crop, and most used sustainable practices like cover crops and conservation tilling. The qualitative (pilesorting and think-aloud) and quantitative (questionnaire) data were analyzed separately and then merged to provide insight into growers' perceptions of VSPs (Creswell & Plano Clark, 2018). This approach identified how growers categorize VSP-related concepts and the factors influencing their enrollment decisions, contributing to a clearer understanding of their thought processes. To ensure reliability, validity, and rigor, this study utilized expert panel review of the instruments, a pilot test, and reliability tests of the questionnaire.

Results

The average age of participants was 47, with ages ranging from 27 to 68. The average framing experience was 23.2 years, and 93.3% received their primary income from farming. A cognitive mapping approach revealed five clusters of related concepts: on-farm management, off-farm supply chain, sustainability programs, data entry, and worker well-being. The eigenvalue ratio (9.7) indicated strong consensus among growers regarding these topics. The most frequently included terms in conversations about VSPs were primarily related to on-farm management, with irrigated water use being the most mentioned (96.7%). Conversely, terms related to off-farm processes and sustainability programs, such as data entry (33.3%) and social sustainability (40%), were the least frequently included. These findings provide insights into growers' mental models and the factors they prioritize when discussing VSPs.

Conclusions, Implications, & Recommendations

Texas High Plains cotton growers conceptualize VSPs through three main clusters: on-farm management, off-farm supply chain, and sustainability programs. Growers are more likely to focus on on-farm decisions, such as soil health and irrigated water use, as these are within their control. In contrast, off-farm factors like transparency and traceability are perceived as beyond their influence, as they fall under the control of cotton mills, manufacturers, brands, and retailers. This distinction between control and lack of control can either motivate or discourage growers from enrolling in a VSP. These findings reflect key components of the Diffusion of Innovations theory and the Theory of Planned Behavior, as growers' perceived behavioral control over on-farm versus off-farm factors, attitudes about program complexity, and the influence of supply chain norms all play a part in their decisions to enroll. While some may seek participation to influence the supply chain, others may view it as an ineffective use of their time. These findings align with prior research indicating that operational characteristics heavily influence agricultural producers' adoption of new practices (Arbuckle & Roesch-McNally, 2015; Campbell & King, 2022). However, unlike previous models, this study highlights the significance of off-farm factors in cotton growers' decision-making. Given that cotton is a non-food commodity with limited domestic process (Voora et al., 2023; Zhang et al., 2023), growers incorporate fiber quality, cotton mills, and manufacturers into their mental models. This underscores the need for cotton-specific research to develop conceptual frameworks that accurately reflect their perspectives. The findings of this study suggest that VSPs seeking to increase enrollment among [region] must address both on-farm and off-farm concerns. Since growers prioritize on-farm management decisions, communicators should highlight the direct benefit of VSPs on factors such as farm productivity, soil health, and water use efficiency. Additionally, clear communication about how VSP participation influences the broader supply chain could help producers see value in participation. Efforts should also focus on reducing perceived barriers, such as complexity and time investment, by streamlining enrollment processes and highlighting the availability of technical support. To improve VSP adoption, industry stakeholders should develop targeted outreach strategies that acknowledge the concerns growers have regarding control and relevance. Demonstrating how VSPs can give growers a stronger voice in supply chain decisions may encourage participation, especially among those who are hesitant due to a perceived lack of influence. Further research should explore how different messaging strategies impact growers' willingness to enroll, as well as how VSPs can be tailored to better align with producers' operational realities. Though regionally focused, these findings could inform more effective communication across other cotton growing regions.

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