Adopt What?

Describing Louisiana wheat producers’ level of adoption of soil health management practices

Introduction

• Assessing the influences of adoption of soil health management practices (SHMP), such as reduced tillage, cover cropping and/or double cropping, is necessary to measure agricultural producers’ ability to implement SHMP (Carlisle, 2016; Adusumilli & Wang, 2018).
• The conservation and management of soil require informed decisions by producers in Louisiana’s subtropical climate (Meng et al., 2021).
• To improve soil conditions and management of nutrients, targeted communication and educational programs for wheat producers can aid in the SHMP adoption process.

Theoretical Framework

• Rogers (2003) Five Adopter Categories: Innovators, early adopters, early majority, late majority, and laggards, which we used to guide the analysis of our data.

Purpose

• To investigate the factors that influence producer’s ability to adopt SHMP based on Rogers’ (2003) five adopter categories.

Method

• Qualitative interviews with 6 Louisiana wheat producers.
• Purposive Sampling: Louisiana State University Parish Extension Agents helped us identify the sample through purposive sampling (Patton, 2002).
• Recorded and transcribed the interviews for unitization.
• Secondary review of each of the five categories to ensure the data were analyzed for alignment with the framework (Patton, 2002).
• We accomplished validity through analyst triangulation (Patton, 2002).

Findings

Innovators: Pose exceptional views of technology in the field and were highly interested in receiving the latest practice and equipment information.
• “We have to be into technology, we have to stay up to date or we get left behind.”

Early adopters: Discern in their adoption of innovations.
• “Most people around here still do a lot of conventional plowing and they make good yields so minimal till is not necessarily something I am doing solely for yield.”

Early majority: Those who adopt only after a significant amount of time and decision making (Rogers, 2003).
• “Through years of intense management, we have built soil up that didn’t yield before, and our soil yields great now.”

Late majority: Adopt innovations given the guaranty of finance and yield increases. They also lacked the necessary information to adopt.
• A participant in our study wants to “…try cover crops but [he] would like to stay in business with what the farm has.”

Conclusions

• Most participants in our study are willing to adopt soil health management practices given the appropriate information, climate, soil conditions, and timing of implementation.
• Innovators in our study are close followers of scientists and stay current with the latest technological innovations.
• Rigorous monitoring of soil and crop health help producers (early majority and late majority) make adoption decisions regarding SHMPs.
• Participants in our study did not necessarily align with the characteristics of laggards due to the lack of suspicion surrounding innovative SHMPs.

Implications and Recommendations

• These findings reveal the need for region-specific scientific information to be appropriately disseminated to wheat producers.
• The varying climate and soil conditions may affect the adoption and implementation of management practices.
• Adoption of SHMPs could improve data-driven information delivered through Extension-hosted trainings.
• This study follows data collected from Texas and Oklahoma producers. We plan to study the desired communication and education methods that would benefit wheat producers in all three states.

References


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