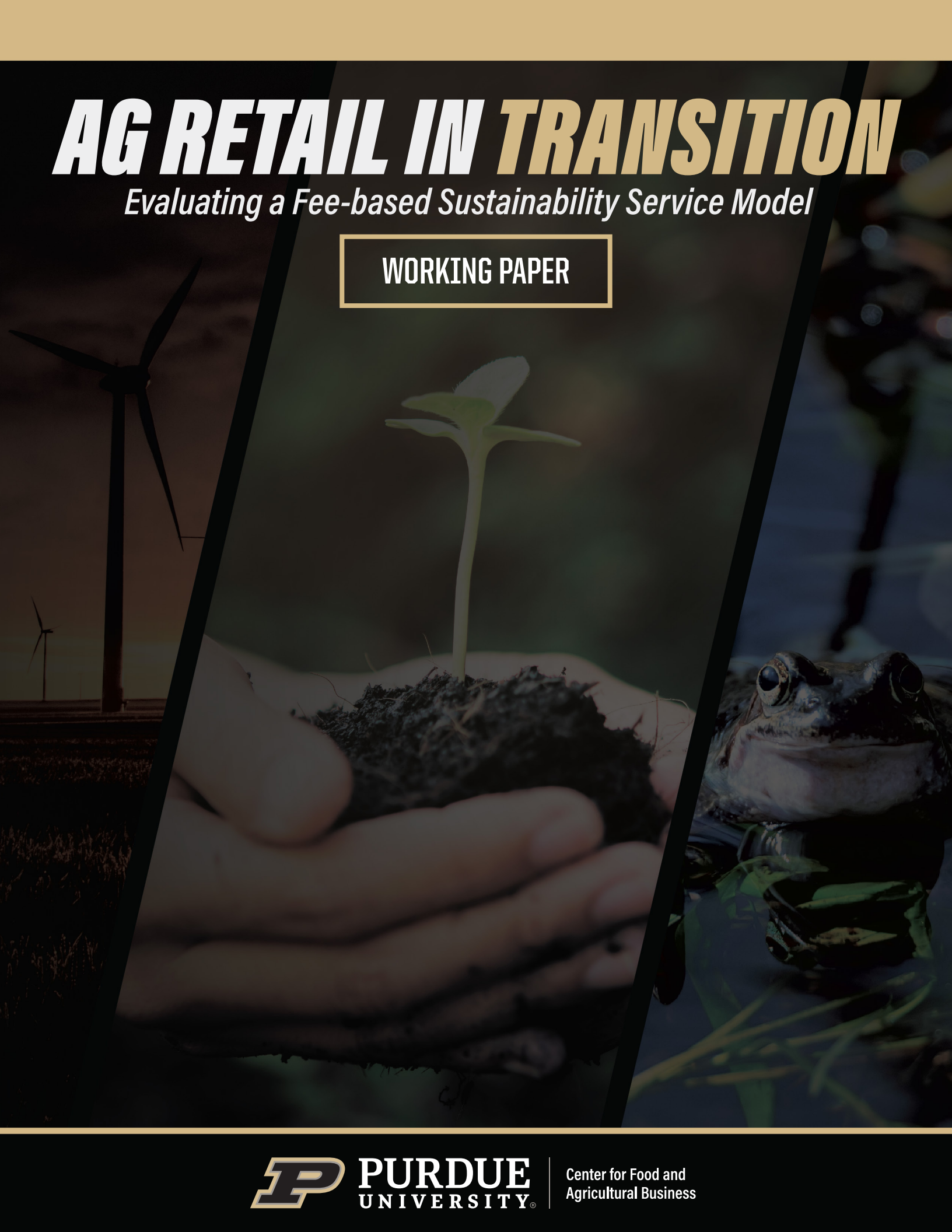


# **AG RETAIL IN TRANSITION**

*Evaluating a Fee-based Sustainability Service Model*

WORKING PAPER



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# EXECUTIVE SUMMARY

The idea of sustainability, in all of its forms, in the food and agricultural chains is not new, but it has recently gained a great deal of attention. One of the most important aspects of being sustainable is the adoption of agricultural conservation practices. These practices play a critical role in reducing input use, improving soil health, enhancing water quality, sequestering carbon and reducing other greenhouse gas emissions. However, despite many of these practices showing promise in also reducing production costs and enhancing yields, adoption rates remain stubbornly low, ultimately limiting the desired sustainability impacts of these practices.

This research sought to understand both agricultural retailers' and farmers' views and actions regarding conservation practices. The objective of this study was to explore the opportunities and challenges both farmers and agricultural retailers face in planning and adopting conservation practices. A key focus was to evaluate the role of agricultural retailers in fostering conservation practice adoption by farmers. The study also explored the potential for a business model for sustainability services that complemented agricultural retailers' current business model to better compete and maintain relevance in supporting the current and future conservation needs of their farmer customers.

The study was conducted through ten focus groups, which took place from December 2019 to June 2020. Five of the focus groups featured

retailers from midwestern states, and the remaining five focus groups featured those retailers' respective farmer customers. During the focus groups, each group was questioned about their view on different aspects regarding conservation practices, their adoption, barriers, retailers' role and business opportunities. Their opinions were summarized and compared in order to understand the different points of view between these groups. The results of this analysis presented key themes. The major observed takeaways from this research were related to:

- Retailers' willingness to take the leadership role in conservation practice adoption.
- The necessity to create/show evidence of the return on investment of conservation practices.
- Understanding who is benefiting from these practices and who is paying for them.
- The supply chain opportunities and regulations related to these practices.
- Finding and incentivizing influencers for conservation practice adoption.

Additionally, important conclusions were drawn. For example, the right set of tools and incentives for conservation practice adoption is fundamental, and the way forward is through a solution-based system.

# INTRODUCTION AND OBJECTIVES

Farmer adoption of enhanced conservation practices helps reduce the impact of agriculture on the environment. Specifically, these enhanced conservation practices, or best management practices, help to reduce climate change, water scarcity, land degradation, deforestation and other processes. However, farmer adoption rates for specific practices continue to lag, minimizing the overall impact of enhanced conservation practices (ERS REPORT, 2015).

Prokopy, et al. (2015) suggests that growers and landowners may take interest in investing in adopting new practices, but they rely on their trusted local agricultural retailer agronomist or salesperson for information and advice on adopting new management practices to improve their operation. Therefore, agricultural retail agronomists and advisors whom farmers trust may have the ability to increase the adoption rates of conservation practices by encouraging farmers to invest and providing them with the information, resources and services they need. However, anecdotal evidence suggests retailers have not been overly successful at creating momentum in adoption of enhanced conservation practices, and the role retailers play in increasing adoption is not well known.

There are a number of challenges retailers have identified that reduce their ability to influence farmer adoption of these enhanced conservation practices. Agricultural retailers are facing major

obstacles, including low commodity prices, consolidation of ag input manufacturers and consolidation of farmer customers. The industry is also experiencing shrinking product margins, partially due to the growing influence of online ag input sales and associated price transparency. In the current environment, many agricultural retailers are questioning their traditional business models that rely on margins captured from product sales to maintain their investments in product distribution infrastructure, personnel and custom application services. Historically, ag retailers have sold products such as fertilizer and absorbed the cost of soil testing, not highlighting their true cost of services; therefore, farmers may not have a clear picture of the services their ag retailer provides. To bridge this gap, there are potential opportunities for retailers to modify their current value offerings to provide recommendations and services associated with enhanced conservation practices, which could generate fee income to complement their current revenue streams. However, the demand for these services is uncertain, farmers' willingness to pay for these services is unknown and the best business model for retailers to implement for conservation practice services is undetermined.

Ultimately, retailers seek to serve their farmer customers' needs and create value that those customers are willing to pay for. Thus, one potential challenge retailers face in influencing farmer adoption of conservation practices may be the lack of a clear value proposition and/or business model, which would allow retailers to create and capture value in assisting

farmers with the adoption of these practices. The objective of this research is to explore the opportunities and challenges both farmers and agricultural retailers face in planning and adopting enhanced conservation practices. It also evaluates the role of agricultural retailers in fostering conservation practice adoption by farmers and explores the potential for a fee-based business model for sustainability services that complements the current business model.

The results of this study will help agricultural retailers and other stakeholders interested in fostering enhanced conservation practices gain insights on barriers to farmer adoption of these practices, profitability barriers of offering these services for ag retailers and potential opportunities to drive adoption. Identifying the potential for customized fee-based conservation services may help agricultural retailers build new income streams, maintain relevance in supporting the current and future needs of their farmer customers, and contribute to healthier soil, improved water quality and cleaner air. These potential value propositions carry even more significance when considering the recent increased interest of consumers for more sustainably grown food and food ingredients. Even where fee-based services may not be possible, identification of key barriers to ag retailer influence in farmer adoption of conservation practices may lead to new focus areas for NGO's, government agencies and other food chain agents interested in working with retailers to raise the level of influence on adoption and maximize policy tools used to drive adoption.

The remainder of this paper consists of a description of the used research methodology, followed by a section in which the most important topics discussed in the focus groups are presented. Each topic features the researchers' analysis of the different views from both groups in a cohesive and objective manner. Finally, a closing section presents the researchers' overall conclusions from this study, which they use to point out what their discoveries mean for conservation practice adoption, business models and more.

## **METHODOLOGY**

The exploratory nature of this research initiative led to the adoption of a focus group approach for acquiring the necessary data. Ten focus groups were held in total. Five of the focus groups featured retailers from midwestern states, and five focus groups featured those retailers' respective farmer customers. The idea behind the methodological choice of talking to both agricultural retailers and farmers who work together was to explore the potential similarities or disparities between two critical perspectives when considering conservation practice adoption.

Each focus group session was approximately two hours in length. The ag retailer employee focus groups consisted of four to eight professionals at different management levels, preferably (but not necessarily) employees who have been somehow directly or indirectly involved with sustainability services. All ag retailers interviewed had a farmer-owned cooperative structure. The

farmer focus groups consisted of a mix of three to five farmer customers who adopt or do not adopt enhanced conservation practices. The agricultural retailers who participated in this study service territories located in Indiana, Ohio, Michigan, Illinois, Iowa and/or Nebraska.

The study took about six months (December 2019 to June 2020) to complete. Researchers conducted the first six focus group sessions in-person, and the remaining four sessions were held virtually via the Zoom meeting platform due to the Coronavirus outbreak. Questions during the focus groups were centered around the rate of current adoption levels and types of conservation practices, benefits and barriers of adoption, business opportunities and challenges for agricultural retailers and future adoption.

The retailer focus groups were asked:

- How much adoption have you seen of each conservation practice?
- What are the critical barriers to adoption for growers?
- What do conservation practices mean to you in terms of business opportunities (positive, negative, or neutral and why)?
- Do you have any stream of revenue coming from conservation practices (if yes, please explain)?
- What are the challenges to implementing fee-based sustainability services?

- How should the future be different from today (5 to 10 years)?

The farmer focus groups were asked:

- Do you adopt any conservation practices?
- What are the most important benefits/reasons to adopt conservation practices?
- What are the critical barriers to adopting conservation practices?
- Are you planning to adopt conservation practices more extensively in the future?
- When adopting conservation practices, what are your most relevant expenses or investments? To whom do you normally pay these expenses?
- Who are your partners in adopting conservation practices? In your opinion, what role do ag retailers play in assisting with conservation practice adoption (now and in the future)?

## RESULTS

In this section, the results from the focus group analyses are presented and organized into key themes. Within each theme, the expressed opinions from each group (retailers and farmers) have been summarized and compared in order to gain a better understanding of the perceived gaps. Insights from these analyses have also been drawn and included in the theme discussions. Finally, quotes have been inserted to illustrate

what the analyzed themes are attempting to discuss. These key themes are:

- Farmers' and Agricultural Retailers' Recognition and Understanding of Conservation Practices
- Conservation Practice Adoption by Farmers Varies Significantly
- Farmers Need Proof of Conservation Practice ROI Before Embracing Them
- Agricultural Retailers' Role – Challengers or Followers?
- Regulations (and Public Incentives) Play a Role in Conservation Practice Adoption Rate
- Conservation Practices: A Topic of Conversation, But Not Necessarily a Gateway to Immediate Profit
- A Consensus: The Future Will be Different

## **Farmers' and Agricultural Retailers' Recognition and Understanding of Conservation Practices**

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Upon questioning the definition of enhanced conservation practices, some retailers responded that these practices are activities that help farmers to be more sustainable and profitable. Ag retailers had an operational perception of these practices, as if they were a collection of techniques. The farmers also had an overall technical view, although at a higher level than the retailers, often citing practices such as the

4 Rs, no and strip till, cover crops, precision ag, crop rotation, etc. Interestingly, there was some consensus that these practices could mean trading off short-term gains for long-term gains on the financial and/or environmental aspect.

As technology evolves, the way farmers manage their land evolves too. Demands, either from society and/or the government, force farmers to be more sustainable, and the definition of sustainability changes from place to place. For example, the necessity to address water quality appeared in more than one focus group. Water quality improvement concepts varied from minimizing fertilizer and chemical runoff to limiting soil eroding into rivers. An interesting quote from a farmer illustrates the necessity of always being up-to-date with new practices and technologies: “If you don't learn or try something new every year, you are farming incorrectly.”

## **Conservation Practice Adoption by Farmers Varies Significantly**

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The adoption rate of enhanced conservation practices varied among the farmer focus groups. For some, the perception was that the adoption rate was fairly low, being mostly represented by grid sampling and nutrition planning with variable rate application and some small amounts of cover crops. On the other hand, some held the perception that the necessity and overall adoption of such practices was very high, including practices not mentioned in other groups such as buffer strips.

An interesting point brought up during some focus groups was that retailers seem to believe



that farmers who adopt extensive conservation practices could end up buying less ag input products from ag retailers. As a result, this belief could drive retailer salespeople to be somewhat skeptical or unsupportive of conservation practices. While this could be true in some cases, regardless of the quantity of product sold, the measure of success should be focused more towards profitability, market share, share of wallet and other more refined indexes. A path to doing so is building a better relationship with farmers by offering solution-based offerings instead of product-based (and quantity) offerings. A consulting mindset that includes conservation practices in the retailer's portfolio is very likely the best business model for the future.

In a latter focus group, it was mentioned that retailers are hiring environmental specialist agronomists to focus on growers' demands on this topic. Although the consumption of inputs such as fertilizers and pesticides could be reduced by the use of conservation practices, it is clear the services that come with them add value for both farmers and retailers, therefore offsetting any revenue reduction that could occur. Furthermore, regarding fertilizers, the counter argument is that precision application does not necessarily reduce the amount applied, but instead spreads it to an optimized place. Crop protection product usage might be higher when utilizing cover crops as the farmer may need to terminate the cover crop with a broader chemistry mix before planting the summer crop.

## **Farmers Need Proof of Conservation Practice ROI Before Embracing Them**

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Although the importance of conservation practice adoption was unquestioned throughout the focus groups, the fact that there are many barriers to adoption was present in all of them. The most commented on barrier was the necessity to prove or have consistent evidence that investments made in these practices will yield some profit or benefit — not necessarily in the short-term, or even financially in some cases. On one hand, some retailers stated that proving the benefits of enhanced practices to farmers is difficult and costly. They mentioned that sometimes, there is a lack of data to support these claims, mainly due to not having enough time to gather the data needed, a lack of planning to create “tests” that show adoption benefits, and a lack of third-party resources providing relevant data. On the other hand, some farmers say that they need tangible proof of feasibility and benefits before they are willing to adopt some of these practices on their farms.

Digital tools and platforms such as True Terra, AgriEdge and Climate FieldView, among others, have been leveraged to try to understand or measure the results of conservation practice adoption. These tools come from ag input manufacturers and retailers and are largely used by the sustainability departments of these organizations. These technologies can be one of the best ways to access the data and knowledge necessary to give farmers (and retailers) the proof they need to adopt and prioritize conservation practices.

Another important barrier is the difficulty of changing the way some farmers are used to working on their fields. Some retailers said that even when there is proof of benefit, changing a farmer's mindset is a task that goes beyond technical aspects. Some retailers classified farmers into believers and non-believers when it comes to conservation practices. Sometimes, farm ownership and manager age/generation play an important role in this topic. Labor, cost and timeliness were also mentioned by farmers as barriers to various practices.

Although there is a clear need for the benefits of enhanced performance to be proven, some practices are more easily accepted. Stewardship of the land and environment were stated as important for both retailers and producers. Additionally, agronomical benefits for conservation practices such as erosion mitigation and soil organic matter increase were considered important benefits.

## **Agricultural Retailers' Role - Challengers or Followers?**

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Another important aspect discussed in the focus groups was the role retailers have or should have regarding enhanced conservation practices. Across all of the interviews, the perception was that the farmer actively demands knowledge and assistance regarding conservation practices, and the role of retailers is to supply farmers with their demanded information in timely manner. Moreover, a group of farmers said that retailers are more likely to support them with conservation practices when the farmer is already considering adopting these practices. On

the other hand, some farmers felt retailers were less likely to try to influence them to adopt these practices if they had not previously considered doing so before. According to several retailers, this may be due to a fear of losing customers, especially if the farmer seems to fit into the non-believer category.

Some farmers did not feel that retailers have the capacity to actively offer conservation practices for them as a service, which was supported by a retailer statement, saying that it is very expensive to acquire all of the technology, equipment and knowledge to provide this kind of service before there is enough demand for it; therefore, it could be a dangerous investment.

The retailer groups recognized that offering some practices such as grid sampling with good nutrient management are opportunities to generate revenue from conservation. Retailers understand that business opportunities that emerge from these practices are of fairly low margins, especially on cover crops, but they help the farmer to have better financial results, and more importantly, they solidify retailers' position as trusted advisors.

However, there are retailers who may more actively offer these services to farmers by observing the business possibilities in conservation practices. They may even hire specialized personnel to better service their customers in this area.

In a broader view, it is possible to say that there are retailers who take on the role of challenger and attempt to get producers to adopt more

conservation practices, increasing their business and influence. There are also those who prefer the follower role, being very responsive to farmer demands.

## **Regulations (and Public Incentives) Play a Role in Conservation Practice Adoption Rate**

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When talking about regulations and governmental incentives for adopting conservation practices, cost-share programs such as H2Ohio were mentioned as some of the most important drivers of conservation activities in the current environment. The financial incentives have helped retailers provide services and growers be able to try something they may not do otherwise. These activities ranged from some growers creating first-time nutrient management plans to some growers investing in deep nutrient placement equipment on their own farms.

While farmers usually do not like being told what practices they should or should not employ, there is sentiment that there could be more regulations in the future that may force them to move toward practices they do not currently implement. Both farmers and ag retailers expect that if these regulations come to fruition, some kind of incentive should come with them.

This quote from one of the focus groups better helps us to understand farmers' point of view on this topic: "I do not see it changing much if we're not regulated. If we are regulated, it will be the biggest change over the next five years since I began farming."

## **Conservation Practices: A Topic of Conversation, But Not Necessarily a Gateway to Immediate Profit**

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Retailer representatives did not see sustainability as an area where they can generate much profit; however, the topic of sustainability provides a chance to connect with farmers when they are interested. There was also consensus from farmers regarding this belief, believing that sustainability can present an opportunity to enhance business between farmers and ag retailers.

Some farmers believe retailers have the knowledge and competencies to help them fully take advantage of conservation practices, seeing ag retailers as their partners. However, several other farmers felt the opposite. It seems the gap that presents itself here can be filled (and it is by some retailers) by well-prepared companies positioning themselves as leaders in conservation practice adoption.

On the retailer side, leveraging data gathered from farmers and using specialized personnel seems to be a way in which they can fulfill the role of trusted advisors to farmers. Additionally, the understanding from both groups is that revenue streams will mainly come from services instead of products (inputs), either with machinery, knowledge and/or advice.

Two interesting quotes from one of the focus groups illustrate this dichotomy and the space that retailers can fill: "I just do not see what the retailer is really going to bring to you besides the cover crop." And, "I feel like they (the ag

retailers) are partnering with me on these practices. If we do not make money, they do not make money.”

## A Consensus: The Future Will be Different

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In general, conservation practice adoption is expected to grow, further influencing the retailer’s role. There is an anticipation that the retailer’s “way of working” with their farmer customers in the future will shift to a more holistic mindset, which incorporates conservation opportunities and challenges as part of the mix that currently includes fertility, pest management and crop health.

Following the prediction of more technological conservation practices in the future, retailers expect they will have to become experts in helping producers use these technologies. Farmers understand that this change may be costly, but if the efficiency is proven, they are willing to pay for it.

Retailers expect that conservation practice adoption will be almost mandatory in the future, and they need to be prepared when this regulation comes. In addition, it is expected that the more conservation practices farmers adopt, the more they will search for new ones in hopes of finding a balance of good conservation and profitability.

## CONCLUSIONS

Enhanced conservation practices is a booming field for anyone involved in the agricultural and

food systems, which includes almost everyone. Therefore, understanding how these practices are perceived by two critically important groups directly related to implementing them on the ground is fundamental to successful adoption.

In this research, we interviewed farmers and their agricultural retailers from different locations within the United States. Relevant themes that presented themselves in this study are as follows:

- **Retailers’ willingness to take the leadership role on conservation practice adoption:** Farmers seems to be the ones demanding these practices, but retailers can provide equipment, supplies, technical advice and record keeping, and financial and evaluation assistance to ensure profitability and success. In doing so, ag retailers can become trusted advisors for sustainability and conservation practices.
- **Creating evidence about conservation practice ROI:** It is clear that farmers are willing to adopt conservation practices if it can be proven to them that there is some benefit in doing so. Other agents in the agricultural value chain need to be able to prove these practices are truly beneficial to farmers, the economy, the environment and society as a whole. Retailers, NGOs, universities and government agencies are some of the agents that should seek to provide this proof to farmers, as well as prove the value of these practices to society.

- **Communication challenge: Conservatives or modern agriculture:** There is clearly a barrier to conservation practice adoption when it comes to farmers' and retailers' perceptions on them. It is crucial to be able to change some of the existing bias towards what conservation means and what the results are of their adoption or non-adoption. The future will demand more sustainable food systems, and the value chain will have to adapt.
- **Critical Gap: Who is benefiting and who is paying? Is there a chance practices will be compensated? Supply chain opportunities and regulations:** It is extremely important to understand who is benefiting from the use of conservation practices on American farms and to be able to clearly articulate this message to all stakeholders involved. On the flip side, we know someone will pay for these practices, even if this means investing in their development, proving they are beneficial or making them available to farmers. The most important aspect to consider is that there is value to be created, captured and shared across the value chain and society as a whole.
- **Finding the influencers:** If there is an intent to stimulate conservation practice adoption, it is important to understand if local retailer partners fit more of a challenger or follower profile. For the first group, the incentive should be to help them with technology and provide knowledge to farmers to reach them more effectively. In areas prevalent in followers, either an effort to transform a follower into challenger or a focus on getting farmers interested in these practices should be put into place, ultimately demanding specific information, products and services from their retailers.
- **Tools and incentives:** Regardless of the profile retailers may have on conservation practice offerings, they need the right set of tools to be able to be convincing and provide a good sales pitch. They also need an intriguing incentive structure that has interesting financial and non-financial rewards. A good example of this is the tools and incentives agricultural chemical manufactures offer to retailers that contain scientific information, extensive test results, rebate programs, communication material and strategy, and a responsive structure to solve eventual problems.
- **Moving toward a solution-based system:** The agricultural inputs market is changing, and it seems that a solution-based business model instead of a product-based model is the direction we are headed. With the right set of tools and incentives, agricultural input retailers will be able to add farm-specific (or even field) services to the products they already offer, allowing them to better respond to farmer needs. Conservation practices will need to be fully integrated into this set of products and services to provide a valuable customer experience. The shift to a consulting mindset on the retailer side of the business will create great value for the agricultural value chain as a whole.

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