DEVELOPING A SUSTAINABILITY PROGRAM:

A Manual for Ag Retailers and CCAs

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INTRODUCTION

Although traditional models show the supply chain beginning at the farm and ending with the retail customer, the sustainability of that supply chain begins even further upstream with ag input providers, including the farmer's trusted advisers such as CCAs, agronomists, Extension agents and NRCS field agents.

The purpose of this document is to provide an overview to agricultural retailers and CCAs on the fundamentals of supply chain sustainability in North American commodity crop production. Intended as a companion manual to the series of online modules developed in partnership among the Agricultural Retailers Association, the American Society of Agronomy, the Environmental Defense Fund and Field to Market: The Alliance for Sustainable Agriculture, this manual will provide opportunity for deeper consideration of the topics and offer additional resources the reader may choose to pursue.

A section of this manual is dedicated to each module of the series. Team leaders can guide staff through each module and use the provided questions to stimulate thoughtful discussion about developing a sustainability program at their location.

SUSTAINABILITY 101

This module provides an introduction to sustainability as it relates to commodity crop production.

Segment 1 (Encountering the Term)

SUMMARY. We hear the word “sustainability” from a variety of sources. This module will help us define sustainability and show its importance to you and your customers, describe how sustainability can create business opportunities for you and your grower, and offer resources for you to learn about sustainable crop production.

THINK ABOUT IT. When was the last time you heard the word sustainability used? What was the context?

WATCH THE SEGMENT.

QUESTION(S).

What are some synonyms for sustainability as you understand it?

Why might different people have different definitions?

Segment 2 (Challenge of a Growing Human Population)

SUMMARY. Although technology has brought greater yields to field crop production, growing human populations and increased demand on natural resources will require a systems-level approach to meeting our demands for food, fiber and fuel.

THINK ABOUT IT. What limits yields in commodity crop production?

WATCH THE SEGMENT.

QUESTION(S).

What are three technological advances that have allowed greater yields in the past 50 years?

How does growing demand for meat worldwide affect natural resources?

Segment 3 (Sustainability Defined)

SUMMARY. Sustainability is meeting the needs of the present while improving the ability of future generations to meet their own needs. We seek to improve productivity and profits while improving the environment, conserving natural resources, improving human health and building stronger, more vibrant communities.

THINK ABOUT IT. How do you define sustainability?

WATCH THE SEGMENT.

QUESTION(S).

How does your definition differ from what you heard? How was it similar?

Were you surprised by the definition?

Segment 4 (Synergistic Effects)

SUMMARY. Sustainability is compared to a three-legged stool: truly sustainable solutions must address social, economic and environmental concerns. Adopting a single agronomic practice will not necessarily make an operation more sustainable, but a systematic plan that incorporates a number of strategies will have a synergistic effect.

THINK ABOUT IT. How does the expression “the whole is greater than the sum of its parts” relate to production agriculture?

WATCH THE SEGMENT.

QUESTION(S).

How do the farming operations in your territory interact with the greater community?

How does the prosperity of your customers affect the prosperity of the communities they live in?

Segment 5 (Sustainability as a Value)

SUMMARY. Most people value profitability, community vitality and clean water. Ag retailers play a critical role in how crops are grown, farm operations are run and natural resources are used, and in community response to challenges.

THINK ABOUT IT. What is an ag retailer’s role in protecting soil and water?

WATCH THE SEGMENT.

QUESTION(S).

Does your company have a values statement? What does your company value?

What do you value for yourself and your family?

Segment 6 (Grower Testimonial)

SUMMARY. Growers value efficiency and farming so their operations will be around for the next generation. This is at the heart of sustainability, whether or not they recognize it as such.

THINK ABOUT IT. What are the top concerns of your customers right now?

WATCH THE SEGMENT.

QUESTION(S).

Which of your customers are operating legacy farms that have been in production for generations? What is the key to their longevity? What threatens their future? What is your role in making sure they around for 100 more years?

Segment 7 (Benefits to Ag Retailers)

SUMMARY. Offering sustainability insights to your customers is good business for an ag retailer. Customers look to you for agronomic expertise and the products and services that will make their operations more sustainable.

THINK ABOUT IT. Can supporting your customers to help them be more sustainable also deliver business opportunities for the retailer?

WATCH THE SEGMENT.

QUESTION(S).

Have your customers been asking questions about soil health, water quality or quantity, or protecting pollinators?

What skills do you have to address their questions?

Segment 8 (Benefits to Staff)

SUMMARY. Ag retailers can become top employers by providing their staff opportunities for professional development in sustainability.

THINK ABOUT IT. What draws new talent to your company?

WATCH THE SEGMENT.

QUESTION(S).

Would any of your team members value the opportunity to develop expertise in sustainability?

Are any of them CCAs with a sustainability specialty?

Segment 9 (Environmental Benefits)

SUMMARY. Ag retailers can have lasting impacts on the environment by supporting operations that conserve soil, water and biodiversity; protect agricultural land, water quality, build soil carbon; and reduce greenhouse gas emissions.

THINK ABOUT IT. What environmental issues are most pressing in your community?

WATCH THE SEGMENT.

QUESTION(S).

What do you think people outside the ag community believe about the impacts of production ag on the environment?

Can you recall a recent conversation you have had with friends or family about water quality or another environmental concern?

Segment 10 (Community Benefits)

SUMMARY. Thriving communities rely on a healthy environment and the economic prosperity of its residents. Supporting sustainable agriculture helps build communities where people want to work and live.

THINK ABOUT IT. What makes a livable community?

WATCH THE SEGMENT.

QUESTION(S).

Why do people move to your community? Why do they leave?

What role does your company play in making your community a good place to live?

Segment 11 (Subsequent Modules)

SUMMARY. The next modules in this series will cover the metrics of sustainability, the practices and services that support sustainable agriculture, the farmer business case, how to measure success, and how to develop a program within your organization.

THINK ABOUT IT. How confident are you in providing sustainability insights to your customers?

WATCH THE SEGMENT.

QUESTION(S).

What resources do you need to build your competence and confidence to work with your customers as they become more sustainable?

What resources does your company need to develop to support its staff in this endeavor?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. What preconceived notions might your customers have that could make them skeptical or reluctant to talk about the sustainability of their operations?

Agronomist Focus Example. Does bringing sustainability into discussions with customers offer opportunities for increased sales? Are there any potential threats or drawbacks from initiating these discussions?

Company Focus Example. Are there other ag retailers in your territory that have already developed programs that address sustainability? How are those programs working? What is the public's perception?

ENVIRONMENTAL SUSTAINABILITY METRICS

This module explains the environmental indicators that are most commonly measured in supply chain sustainability, and introduces the sustainability goals of some global food companies.

Segment 1 (Review)

SUMMARY. Sustainability means meeting the needs of the present while improving the ability of future generations to meet their own needs, and includes economic, environmental and social components.

THINK ABOUT IT. How has your thinking about sustainability changed since before you watched the first module?

WATCH THE SEGMENT.

QUESTION(S).

How does sustainability, as defined here, relate to the future of farming?

What natural resources necessary for successful production are limited in your area?

Segment 2 (Introduction)

SUMMARY. Agricultural supply chain companies are responding to their customers' demands for food and fiber that are grown more sustainably.

THINK ABOUT IT. How does supply chain interest in sustainably grown food potentially impact your business?

WATCH THE SEGMENT.

QUESTION(S).

What do food companies want to see from ag sustainability efforts?

How many metrics will you be expected to summarize by the end of the module?

Segment 3 (What Is Driving Sustainability?)

SUMMARY. Consumer interest in, knowledge about and concern for sustainable production methods is driving demand for more sustainable production. The ag community is responding to this demand by documenting practices and offering transparency.

THINK ABOUT IT. Why should your growers care about consumer concerns about sustainability?

WATCH THE SEGMENT.

QUESTION(S).

What shapes consumer concerns about the effects of agriculture on the environment?

What are three of the consumer concerns mentioned in the module?

Segment 4 (Working Toward Sustainability)

SUMMARY. Field to Market's diverse membership represents the entire supply chain. Together, these organizations are working to continuously improve commodity crop sustainability.

THINK ABOUT IT. What companies or organizations are working on agricultural sustainability issues in your area?

WATCH THE SEGMENT.

QUESTION(S).

Which members of Field to Market have a visible presence in your community?

Where do ag retailers fit into the supply chain?

Segment 5 (Walmart)

SUMMARY. Walmart is working with more than 15 suppliers on 76 million acres to reduce greenhouse gas emissions and water quality impacts from its supply chain. It is also involved in projects to increase grower adoption of cover crops.

THINK ABOUT IT. To what extent do your customers feel connected to Walmart's supply chain?

WATCH THE SEGMENT.

QUESTION(S).

How many acres has Walmart committed to the development of fertilizer optimization plans by 2025?

As part of Project Gigaton, why is Walmart working with suppliers to establish fertilizer management goals?

Segment 6 (McDonald's)

SUMMARY. McDonald's is focused on reducing greenhouse gases and conserving water in its supply chain.

THINK ABOUT IT. To what extent do your customers feel connected to the McDonald's supply chain?

WATCH THE SEGMENT.

QUESTION(S).

What organization did McDonald's join to work with Walmart on sustainability issues in the Midwest?

What major water quality concern is McDonald's working to address?

Segment 7 (Kellogg's)

SUMMARY. The Kellogg Company focuses on reducing greenhouse gases and conserving water in its supply chain.

THINK ABOUT IT. Do any of your customers' crops end up in Kellogg's products?

WATCH THE SEGMENT.

QUESTION(S).

What are two impacts Kellogg's is trying to reduce?

What is hypoxia?

Segment 8 (General Mills)

SUMMARY. General Mills is working to reduce greenhouse gas emissions and water use in its supply chain.

THINK ABOUT IT. To what extent do your customers feel connected to the General Mills supply chain?

WATCH THE SEGMENT.

QUESTION(S).

What are three elements of General Mills' approach to meeting its goals?

What are two sustainability issues on which General Mills is working with agronomists and growers?

Segment 9 (PepsiCo)

SUMMARY. PepsiCo is focused on improving the water use efficiency and greenhouse gas emissions of its supply chain.

THINK ABOUT IT. To what extent do your customers feel connected to PepsiCo's supply chain?

WATCH THE SEGMENT.

QUESTION(S).

What's are PepsiCo's water goals?

What's are PepsiCo's greenhouse gas goals?

Segment 10 (Examples Conclusion)

SUMMARY. As members of the agricultural supply chain, you have opportunities to work with these companies and others like them to grow your business and that of your customers.

THINK ABOUT IT. What was the common resource concern of each company mentioned in the module?

WATCH THE SEGMENT.

QUESTION(S).

What opportunities does this demand create for your customers?

How might you connect your customers with these supply chain companies?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Ask the team to share their customers' perceptions about how they connect to the supply chains of food brands like those mentioned in the module.

Agronomist Focus Example. Ask the team to list some of the ways that their customers' products are part of these food companies' supply chains.

Company Focus Example. Ask team members what food company partnerships would be beneficial to your growers.

Segment 11 (8 Metrics of Environmental Sustainability)

SUMMARY. In order to take advantage of supply chain partnerships, you and your growers will need to measure sustainability performance. Working with your growers, you can collect baseline data and document improvements over time.

THINK ABOUT IT. What resources do you think sustainability metrics should measure?

WATCH THE SEGMENT.

QUESTION(S).

What are the two overarching measurement tasks that must be included in your system to benefit from supply chain relationships?

Why is there emphasis on continuous improvement?

Segment 12 (8 Metrics of Environmental Sustainability)

SUMMARY. There are eight key metrics to measure sustainability performance using the Fieldprint® Platform that are science-based, data-focused and objective: biodiversity, energy use, greenhouse gases, irrigation water use, land use, soil carbon, soil conservation and water quality.

THINK ABOUT IT. As a way of contextualizing the metrics, what types of organizations does Field to Market represent?

WATCH THE SEGMENT.

QUESTION(S).

What are five of the Field to Market metrics?

What are the three requirements of each metric?

Segment 13 (Biodiversity)

SUMMARY. Biodiversity is a key component of a sustainable agricultural system.

THINK ABOUT IT. What do your growers think of when they think about biodiversity?

WATCH THE SEGMENT.

QUESTION(S).

What is a major driver of biodiversity loss?

How might agriculture be part of the solution to threats to biodiversity and habitat?

Segment 14 (Energy Use)

SUMMARY. Energy use is an important metric for understanding production costs of the operation.

THINK ABOUT IT. Can your clients reduce their energy use?

WATCH THE SEGMENT.

QUESTION(S).

What are examples of direct energy use in agricultural production?

What are examples of indirect or embedded energy use in agricultural production?

Segment 15 (Greenhouse Gas Emissions)

SUMMARY. Greenhouse gas emissions are contributing to global climate change.

THINK ABOUT IT. What do your growers think of when they think about greenhouse gas emissions?

WATCH THE SEGMENT.

QUESTION(S).

Which greenhouse gases are produced as a result of ag production?

What are two ways that agriculture can reduce its emissions impact?

Segment 16 (Irrigation Water Use)

SUMMARY. Agriculture is the single-largest consumer of water in the US.

THINK ABOUT IT. Are your customers concerned about water availability for production?

WATCH THE SEGMENT.

QUESTION(S).

How much of the cropland you work with is irrigated?

What are some ways irrigation efficiency can be improved in your area?

Segment 17 (Land Use)

SUMMARY. The most suitable land for agriculture in the US is already under cultivation.

THINK ABOUT IT. Do you know of any fields that don't yield well, despite best management?

WATCH THE SEGMENT.

QUESTION(S).

What is the primary indicator of land use efficiency?

What are some alternative uses for land that are not providing a reasonable ROI?

Segment 18 (Soil Carbon)

SUMMARY. Soil can play an important role in sequestering and/or storing carbon.

THINK ABOUT IT. What do your growers consider to be “good” soil?

WATCH THE SEGMENT.

QUESTION(S).

What are three practices your customers can use to increase soil carbon?

How does tillage affect soil carbon?

Segment 19 (Soil Conservation)

SUMMARY. Conservation of soils formed over millennia is critical for continued agricultural production.

THINK ABOUT IT. What are some potential consequences of soil erosion?

WATCH THE SEGMENT.

QUESTION(S).

What are three practices your customers can use to reduce erosion from farm fields?

What is the most common driver of soil erosion in your area?

Segment 20 (Water Quality)

SUMMARY. Water quality can be impacted when fertilizer, sediment and crop protectants are carried away from the field and into water sources.

THINK ABOUT IT. What do your growers think of when they think about agricultural impacts on water quality?

WATCH THE SEGMENT.

QUESTION(S).

How might farming activities impact water quality?

What water quality issues does your community face?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. What environmental concerns are most talked about in your customers’ communities?

Agronomist Focus Example. What biases do team members carry about environmental issues?

Company Focus Example. Which of these eight environmental indicators would make the most sense for your company to focus on?

Segment 21 (Social and Economic Considerations)

SUMMARY. Progress improving in the eight Field to Market metrics must be matched by progress in economic and social sustainability.

THINK ABOUT IT. When you think about sustainability in general, what metrics would you add to the eight already mentioned?

WATCH THE SEGMENT.

QUESTION(S).

What supply chain trends can be expected in the coming years?

Segment 22 (Resources for Measurement)

SUMMARY. There are a number of organizations working to improve areas represented by each of the eight metrics.

THINK ABOUT IT. What organizations in your area are working to address natural resource concerns?

WATCH THE SEGMENT.

QUESTION(S).

What local sustainability initiatives are active in your area now?

Segment 23 (Summary)

SUMMARY. Improving in each of the eight metric areas, especially as part of a systems approach, can improve all aspects of sustainability.

THINK ABOUT IT. Is there room for improvement in my customers' operations?

WATCH THE SEGMENT.

QUESTION(S).

What business opportunities do you see sustainability offering your company?

PRACTICES THAT SUPPORT SUSTAINABLE AGRONOMY

This module covers some of the most impactful agronomic practices that improve the sustainability performance of a farming operation.

Segment 1 (Trusted Adviser)

SUMMARY. As an adviser who wants to see your customers succeed, you are key to improving the sustainability of their farm management systems.

THINK ABOUT IT. What are some of the goals you have for your customers?

WATCH THE SEGMENT.

QUESTION(S).

According to the module, what are four benefits of sustainable crop production?

What are the two primary ways you influence the sustainability of your growers?

Segment 2 (Agronomic Practices)

SUMMARY. This module will examine four examples of practices and frameworks that improve your customers' sustainable production: 4R Nutrient Stewardship, conservation tillage, cover crops and crop rotations.

THINK ABOUT IT. What approaches, practices or tools come to mind when you think about helping your customers improve the sustainability of their operations?

WATCH THE SEGMENT.

QUESTION(S).

What three criteria are met by the practices and frameworks included in the module?

How is 4R Nutrient Stewardship different from the other three items on the list?

Segment 3 (Examples)

SUMMARY. It's important to recognize that these are simply examples rather than prescriptions for how your customers can achieve sustainability.

THINK ABOUT IT. Which of the four practices or frameworks listed is most common among your growers?

WATCH THE SEGMENT.

QUESTION(S).

What are some of the ways in which your customers differ from one another?

What are the three questions you should ask yourself when considering these and other management practices?

Segment 4 (Systems Approach)

SUMMARY. Your growers will get better and more sustainable results by using multiple techniques as part of a cohesive farm management system.

THINK ABOUT IT. From an agronomic standpoint, why is it important to look at the whole system when selecting what practices the grower might want to use?

WATCH THE SEGMENT.

QUESTION(S).

What is meant by the term "synergistic effect"?

Why should you encourage your customers to use two or more practices in their effort to be more sustainable?

Segment 5 (NOT Deep Technical Review)

SUMMARY. This is a high-level overview of how these practices contribute to improved sustainability rather than a technical examination of each practice.

THINK ABOUT IT. How would you go about learning more about practices with which you don't have much experience?

WATCH THE SEGMENT.

QUESTION(S).

What might be the first organization sought out for more technical information about these practices and frameworks?

What should you look for as you work through this module?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Ask the team to list the most popular practices, tools and frameworks for sustainability used by growers in your area.

Agronomist Focus Example. SPARC materials often refer to a systems approach to management. Ask the team to brainstorm about what components of the growers' operations are included in the "system."

Company Focus Example. Ask team members what practices, tools and frameworks your company offers to help growers improve their sustainability.

Segment 6 (Sustainability Practices)

SUMMARY. Cover crops, conservation tillage, crop rotation and 4R Nutrient Stewardship are four common components of sustainable farming.

THINK ABOUT IT. Which of these are most implemented in your area?

WATCH THE SEGMENT.

QUESTION(S).

Are all of these implemented in your area?

Can you think of successes or failures of operations that have implemented these practices?

Segment 7 (4R Nutrient Stewardship)

SUMMARY. The 4R Nutrient Stewardship framework can help your growers' operations by increasing crop productivity and farm profitability and improving environmental protection and health.

THINK ABOUT IT. On which of the 4Rs do your growers tend to have the most room for improvement?

WATCH THE SEGMENT.

QUESTION(S).

What does each of the 4Rs stand for?

What are potential consequences of your customers poorly managing their nutrients?

Segment 8 (Best Management Practices)

SUMMARY. The key to 4R Nutrient Stewardship is effective implementation of best management practices that are appropriate to each location and operation and minimize nutrient losses from the field.

THINK ABOUT IT. With what 4R BMPs do you already support your growers?

WATCH THE SEGMENT.

QUESTION(S).

What are some site-specific examples from your area that determine the right nutrient source?

What are your customers trying to minimize through 4R Nutrient Stewardship?

Segment 9 (Nutrient Management Resources)

SUMMARY. There are many science-based resources to enhance your knowledge of 4R Nutrient Stewardship.

THINK ABOUT IT. This module provides some national-level resource suggestions. What are some state and local resources that you could use to learn more about 4R Nutrient Stewardship BMPs that are most effective in your area?

WATCH THE SEGMENT.

QUESTION(S).

What post-CCA specialty can communicate your 4R expertise to your customers?

Do any staff at your company have special training in 4R Nutrient Stewardship?

Segment 10 (Precision Agriculture)

SUMMARY. Precision ag techniques, hardware and software can help your growers improve their nutrient use efficiency and profitability.

THINK ABOUT IT. With what aspects of precision agriculture do you already support your growers?

WATCH THE SEGMENT.

QUESTION(S).

What are three examples of precision agriculture?

How might you take advantage of global positioning systems and geographic information systems to benefit your growers' operations?

Segment 11 (Maximum Benefits)

SUMMARY. Precision ag and nutrient stewardship are most beneficial when integrated with other conservation and agronomic practices.

THINK ABOUT IT. In what ways can 4R Nutrient Stewardship be combined with other practices to maximize grower benefits?

WATCH THE SEGMENT.

QUESTION(S).

What are some practices that improve nutrient use efficiency?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. How widespread is precision technology among your customers? Are they fully utilizing the technology they own?

Agronomist Focus Example. Ask team members to share areas in which they feel they might need more training to effectively support 4R Nutrient Stewardship.

Company Focus Example. Technology tools are getting increasingly less expensive. Ask team members what technologies the company should consider investing in to grow the business.

Segment 12 (Cover Crops)

SUMMARY. Cover crop usage is steadily increasing in production agriculture.

THINK ABOUT IT. What percentage of your customers currently plant cover crops?

WATCH THE SEGMENT.

QUESTION(S).

What are four benefits of integrating cover crops into an operation?

What is the primary function of cover crops, according to the module?

Segment 13 (Improve Bottom Line)

SUMMARY. Cover crops can boost farmer profit margins and improve the bottom line by nutrient scavenging, adding nutrients to the soil, suppressing pests and helping water management.

THINK ABOUT IT. How widespread is the use of cover crops in your area?

WATCH THE SEGMENT.

QUESTION(S).

What are three ways cover crops may reduce pesticide costs?

What are the water management benefits of cover crops?

Segment 14 (Economic and Environmental Sustainability)

SUMMARY. Although the short-term benefits of cover crops are not always apparent, the long-term economic and environmental benefits are well-known.

THINK ABOUT IT. What organizations in your area are working with growers to encourage the use of cover crops?

WATCH THE SEGMENT.

QUESTION(S).

How do cover crops improve soil health?

How do cover crops impact water quality?

Segment 15 (Cover Crop Challenges)

SUMMARY. Cover crops can be challenging to successfully implement in the beginning, but this provides an opportunity for agronomists to demonstrate their expertise.

THINK ABOUT IT. What challenges have your customers faced in working to integrate cover crops into their management systems?

WATCH THE SEGMENT.

QUESTION(S).

What are some agronomic considerations when incorporating cover crops into an existing rotation?

What role might you play in a farmer's decision to plant cover crops?

Segment 16 (Cover Crop Challenges)

SUMMARY. Geography and crop rotations are sources of potential challenges to establishing good stands of cover crops.

THINK ABOUT IT. Given the average crop rotation of your customers, what challenges might those growers face in integrating cover crops?

WATCH THE SEGMENT.

QUESTION(S).

What are some potential obstacles to cover crop establishment in northern climates?

What are some potential obstacles to cover crop establishment in your region?

Segment 17 (Cover Crop Challenges)

SUMMARY. Terminating cover crops is another challenging aspect that must be managed in the planting of cover crops.

THINK ABOUT IT. Can you think of an example of a cover crop that wasn't adequately terminated?

WATCH THE SEGMENT.

QUESTION(S).

What are some of the questions you can expect from your growers on the subject of cover crop termination?

What are three factors that must be considered when coming up with termination solutions?

Segment 18 (Cover Crops)

SUMMARY. Cover crops can boost sustainability, but your growers will likely require your agronomic expertise to derive all the benefits and overcome the challenges.

THINK ABOUT IT. How have you supported customers with cover crops in the past?

WATCH THE SEGMENT.

QUESTION(S).

What must be considered in order to effectively bring a cover crop into a cropping system?

What organization has abundant resources to help you start or continue learning about cover crops?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Ask the team to share their customers' experiences and concerns with cover crops in your area.

Agronomist Focus Example. Ask team members to brainstorm ways to help your customers overcome some of the challenges and concerns they have with cover crops.

Company Focus Example. What cover crop products and services does your company already offer?

Segment 19 (Conservation Tillage)

SUMMARY. Conservation tillage means leaving residue from the previous crop on the field before and after planting.

THINK ABOUT IT. What types of tillage practices do your customers currently use?

WATCH THE SEGMENT.

QUESTION(S).

What are the goals of conservation tillage?

How much residue must be left on the field in order to start achieving those objectives?

Segment 20 (Conservation Tillage Methods)

SUMMARY. Conservation tillage methods include no till, strip till, ridge till and mulch till, and require specialized equipment and crop management.

THINK ABOUT IT. Do any of your customers use conservation tillage?

WATCH THE SEGMENT.

QUESTION(S).

What specialized equipment is needed for strip tillage?

How much crop residue must be left on the field to be considered mulch tillage?

Segment 21 (Conservation Tillage Benefits)

SUMMARY. Conservation tillage reduces soil erosion, improves soil and water quality, reduces soil water evaporation, reduces air pollution, and provides food and cover for wildlife.

THINK ABOUT IT. What are some environmental concerns in your area that conservation tillage may help to address?

WATCH THE SEGMENT.

QUESTION(S).

Depending on the method, by how much might conservation tillage reduce soil erosion?

How does conservation tillage improve soil health and water quality?

Segment 22 (Practical and Economic Benefits of Conservation Tillage)

SUMMARY. Conservation tillage can reduce costs and increase yields.

THINK ABOUT IT. How does conservation tillage reduce costs?

WATCH THE SEGMENT.

QUESTION(S).

What are the benefits of reduced soil compaction?

How does reduced tillage affect the water-holding capacity of the soil?

Segment 23 (Conservation Tillage Challenges)

SUMMARY. Like any practice, conservation tillage also has challenges that the grower must manage, such as the need for specialized knowledge, increased reliance on herbicides and potentially delayed germination in the spring.

THINK ABOUT IT. What are the most common arguments you have heard against reducing tillage?

WATCH THE SEGMENT.

QUESTION(S).

How might conservation tillage affect herbicide use?

Is conservation tillage equipment widely available in your area?

Segment 24 (Conservation Tillage Challenges)

SUMMARY. Growers can overcome conservation tillage challenges by taking a holistic systems approach to management.

THINK ABOUT IT. What components of the farm management system affect or are affected by conservation tillage practices?

WATCH THE SEGMENT.

QUESTION(S).

What are four components of a farming system that must be managed holistically to realize the benefits of conservation tillage?

What organizations can help you learn more about conservation tillage practices?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Which of your customers has had success with conservation tillage? Which have struggled? Why?

Agronomist Focus Example. What approaches can you take to help your customers decide which tillage practice is a good fit for their operation?

Company Focus Example. What products and services do you offer to support conservation tillage?

Segment 25 (Crop Rotation)

SUMMARY. The crop rotation can have significant impacts on the sustainability of the farm management system.

THINK ABOUT IT. What aspects of sustainability are impacted by the grower's rotation?

WATCH THE SEGMENT.

QUESTION(S).

What are three factors on which crop rotation can have a positive impact?

Segment 26 (Defining Crop Rotation)

SUMMARY. Crop rotation is an agronomic practice using the biological, chemical and physical properties of success crops to improve crop growth, soil health and the economic viability of the farmer.

THINK ABOUT IT. What are the most common rotations in your area?

WATCH THE SEGMENT.

QUESTION(S).

According to the definition in the module, what is the farmer working to improve through the crop rotation?

What are factors to consider when helping your growers decide on the right crop mix for their rotations?

Segment 27 (Crop Rotation Benefits)

SUMMARY. Potential benefits of certain crop rotations include yield boosts, reduced inputs and improved soil properties.

THINK ABOUT IT. What benefits have your growers realized by diversifying their crop rotations?

WATCH THE SEGMENT.

QUESTION(S).

How might shifting to a corn-following-soybean rotation from a corn-after-corn rotation impact fertilizer costs?

What soil properties might be improved by diversifying a crop rotation?

Segment 28 (Crop Rotation Challenges)

SUMMARY. Challenges of diversifying a crop rotation include management complexity and planning requirements.

THINK ABOUT IT. What challenges have your growers reported as they have diversified their crop rotations?

WATCH THE SEGMENT.

QUESTION(S).

What are three key management factors to think about when considering a more diverse crop rotation?

What are three key factors that you and your growers must consider when planning crop rotations?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Ask the team to share the various crop rotations employed by their growers, and how they have changed over time.

Agronomist Focus Example. Ask team members to discuss approaches to starting a conversation with growers about diversifying their crop rotations.

Company Focus Example. Ask team members what products, services and partnerships might benefit grower adoption of diverse crop rotations.

Segment 29 (Basics, Benefits and Challenges)

SUMMARY. In addition to the four practices and frameworks already discussed, there are others worth considering.

THINK ABOUT IT. What do the four practices already mentioned have in common?

WATCH THE SEGMENT.

QUESTION(S).

What are some other practices growers might consider to improve the sustainability of their operation?

Segment 30 (Agronomic Technologies)

SUMMARY. Precision irrigation and conservation drainage boost productivity while protecting water resources.

THINK ABOUT IT. How prevalent are irrigation and drainage among your customers?

WATCH THE SEGMENT.

QUESTION(S).

What are the tools used to improve crop water use efficiency?

What are some conservation drainage techniques?

Segment 31 (Conservation Buffers)

SUMMARY. Conservation buffers are strips of land in permanent vegetation that slow water runoff, provide wildlife habitat and stabilize riparian areas.

THINK ABOUT IT. How many of your growers use conservation buffers in their operations today?

WATCH THE SEGMENT.

QUESTION(S).

What are the benefits of conservation buffers?

What are some examples of conservation buffers?

Segment 32 (Integrated Pest Management)

SUMMARY. Integrated pest management (IPM) is an ecosystem-based strategy that prevents crop damage over the long term.

THINK ABOUT IT. How many of your growers consider IPM as a sustainability strategy?

WATCH THE SEGMENT.

QUESTION(S).

What techniques are employed as part of IPM?

What risks does IPM seek to minimize?

Segment 33 (Summary)

SUMMARY. This module focused on detailing four practices and frameworks and introducing four others.

THINK ABOUT IT. Which of these practices and frameworks are most popular among your customers?

WATCH THE SEGMENT.

QUESTION(S).

What role can you play as your growers consider which practices and frameworks to integrate into their management systems?

What three specialties does the American Society of Agronomy offer to enhance your ability to deliver sustainability services to your growers?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Which of the practices and frameworks mentioned are most familiar to your customers? Which are least familiar?

Agronomist Focus Example. What additional training do you need to boost your expertise in the practices and frameworks that make the most sense for your customers?

Company Focus Example. Are there products and services that your company does not currently offer that could be added to support better sustainable outcomes in your customers' operations?

MEASURING SUSTAINABILITY SUCCESS

Segment 1 (Measuring Success)

SUMMARY. This module will explore how to measure environmental outcomes, Field to Market's Fieldprint® Platform, and the value you can derive by collecting and managing ag sustainability data.

THINK ABOUT IT. How do you currently help collect, analyze and manage your growers' sustainability data?

WATCH THE SEGMENT.

QUESTION(S).

What is the primary data tool that this module will examine?

What are two groups that seek to benefit from farmer sustainability data?

Segment 2 (Value of Measurement)

SUMMARY. Tools that measure sustainability performance can be part of a decision support system and used to determine which practices are achieving the desired results in any given farm management system.

THINK ABOUT IT. What types of sustainability outcomes might you measure using existing decision support tools?

WATCH THE SEGMENT.

QUESTION(S).

What are the four steps in the sustainability framework provided in the module?

How can your business benefit by measuring sustainability outcomes?

Segment 3 (Sustainability)

SUMMARY. Sustainability is about the current and future well-being of the system as a whole.

This segment reviews the definition of sustainability and how a systems approach is needed to improve environmental outcomes in production agriculture.

THINK ABOUT IT. What are the boundaries of the system in which you work with your customers?

WATCH THE SEGMENT.

QUESTION(S).

What are the three legs of the "sustainability stool"?

What are the drawbacks of implementing one sustainability practice without considering other aspects of the farm management system?

What are some examples of agronomic practices that, when implemented together, have synergistic effects? For example, in human health, combining regular exercise with a healthy diet has greater health benefits than exercise or diet alone.

Segment 4 (Learning Objectives)

SUMMARY. After taking this module, you should be able to demonstrate the value of sustainability measurement, understand how you might use data to communicate sustainability improvements, be familiar with the Fieldprint® Platform, and convey the contributions of your company to improved sustainability.

THINK ABOUT IT. What tools do your growers currently use to measure the environmental impacts of their operations?

WATCH THE SEGMENT.

QUESTION(S).

What types of measurements will tools such as the Fieldprint® Platform help provide?

What sort of opportunities can a Fieldprint® analysis help you and your growers identify?

Segment 5 (Why Measure?)

SUMMARY. Recordkeeping and measurement of all aspects of farm management is common and vitally important. Measuring sustainability outcomes adds new dimensions to the data collection already occurring. By measuring sustainability, the ag community can document and tell their own story and earn recognition for the stewardship that is taking place, particularly in these times of increased concern for health and the environment.

THINK ABOUT IT. How might measurement of sustainability outcomes help you tell a credible story about your role in improving environmental outcomes?

WATCH THE SEGMENT.

QUESTION(S).

Who might be the audience for your business's documented improvements in sustainability?

What type of evidence can quantitative data provide for your business?

Segment 6 (Measurement Tools)

SUMMARY. An effective ag sustainability measurement framework should have broad support along the supply chain, from grower groups and ag service providers to ingredient processors and consumer brands and retailers. It should be scientifically based with input from university researchers and conservation groups.

THINK ABOUT IT. What data management systems are you currently using with your customers?

WATCH THE SEGMENT.

QUESTION(S).

Why is it important to include consumer brands and retailers when creating a sustainability measurement tool?

What is the role of conservation groups in this process?

Where does the science behind the measurement tools come from?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. How do your customers feel about recordkeeping and data management? What challenges might arise when seeking additional information?

As a way of demonstrating that the concepts in this module are not foreign to growers, ask the team to discuss aspects of their customers' businesses that they have already measured, assessed and improved based on their measurements.

Agronomist Focus Example. What are some examples of data analyses your staff offer customers? How comfortable are they identifying areas for improvement and making recommendations?

Company Focus Example. Does your company monetize farm data collection and analysis? Are there additional business opportunities that have not yet been explored?

Segment 7 (Fieldprint® Platform)

SUMMARY. The Fieldprint® Platform is a sustainability analytics engine offered by Field to Market: The Alliance for Sustainable Agriculture. You can use this framework to help growers assess the environmental performance of their management practices against local, state and national benchmarks and look for areas of improvement.

THINK ABOUT IT. Have you or any of your growers ever used the Fieldprint® Platform?

WATCH THE SEGMENT.

QUESTION(S).

What is meant by consensus driven?

What are the stakeholders that participated in the development of the Fieldprint® Platform?

What's the difference between a benchmark and a goal?

Segment 8 (Fieldprint® Platform)

SUMMARY. The Fieldprint® Platform can be accessed free online or through qualified data management partners. A growing number of precision ag, decision support and farm management software tools integrate Field to Market's metrics.* Previously collected agronomic data may be used in future sustainability analyses.

THINK ABOUT IT. What software tools do your growers currently use to connect to the Field to Market metrics?

WATCH THE SEGMENT.

QUESTION(S).

Do you use any of the data management solutions that have integrated Field to Market's metrics?

Have you ever generated a Fieldprint® analysis?

* New providers are being added, so be sure to check back often. Find the current list on Field to Market's website: https://fieldtomarket.org/media/2017/02/Field-to-Market-Qualified-Data-Management-Partners.pdf

Segment 9 (Interpreting Scores)

SUMMARY. You can help your growers interpret their Fieldprint® scores so they can understand and document how their management contributes to greater efficiencies and improved sustainability outcomes.

THINK ABOUT IT. What technical information do you already help your customers interpret?

WATCH THE SEGMENT.

QUESTION(S).

What are the eight environmental indicators measured by the Fieldprint® Platform?

What kinds of data are used to generate a Fieldprint® score?

Segment 10 (Analysis)

SUMMARY. Sustainability performance is presented in a Fieldprint® analysis in the form of a spidergram. The smaller the shaded area of the spidergram, the better the performance of the operation for the eight environmental indicators. Larger shaded areas indicate greater potential for continuous improvement.

THINK ABOUT IT. What is the value of measuring sustainability performance for your growers?

WATCH THE SEGMENT.

QUESTION(S).

Why aren't benchmarks considered goals?

What would be the ideal spidergram, if such a thing existed?

Segment 11 (Continuous Improvement)

SUMMARY. The Fieldprint® analysis can be used to help your growers continuously improve in all areas of sustainability. Optimizing yields without increasing crop inputs not only improves operational efficiency and profitability, it also simultaneously improves environmental sustainability.

THINK ABOUT IT. In what other areas have your growers shown continuous improvement in their farm management system?

WATCH THE SEGMENT.

QUESTION(S).

Why are yields a primary factor in several of the metrics?

How is operational efficiency related to environmental sustainability?

Segment 12 (Continuous Improvement)

SUMMARY. Rather than asking growers to make several changes at once, encouraging them to make gradual changes in the management system each year can lead to continuous improvement over time.

THINK ABOUT IT. In what other areas have your growers adjusted their farm management systems over time?

WATCH THE SEGMENT.

QUESTION(S).

Why is gradual but continuous improvement desired?

How can yearly weather fluctuations affect a Fieldprint® score?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. What benefit can your customers gain from measuring the sustainability performance of their farm?

Agronomist Focus Example. What are the pros and cons of documenting sustainability performance?

Company Focus Example. What would it take to bring farm sustainability measurement into the scope of your company?

Segment 13 (Measurement)

SUMMARY. Your agronomic expertise and local knowledge are the key to making measurement pay off for your growers. This information can be used to communicate how your efforts are protecting natural resources and improving communities.

THINK ABOUT IT. How can measurement and documentation lend credibility to your communications with the community?

WATCH THE SEGMENT.

QUESTION(S).

Has there been a time when having documentation of your customer's success would have been useful?

What will measuring sustainability performance allow you and your company to communicate?

Segment 14 (Communicate Value)

SUMMARY. Measurement will allow your growers to document what they are doing, identify areas for improvement and make changes as appropriate. Documentation can be a helpful tool to protect your customers' freedom to operate, and farmer-facing staff will be able to add measurement to their skill set.

THINK ABOUT IT. What is the value of measurement to your customers and staff?

WATCH THE SEGMENT.

QUESTION(S).

How can measurement and documentation protect freedom to operate?

What are the three steps provided in the module for measuring sustainability performance?

What are two of the potential benefits to your company of measuring the environmental performance of your growers?

Segment 15 (Benefits)

SUMMARY. Some companies downstream in the supply chain, such as ingredient processors and consumer brands, have sustainable sourcing goals and may provide incentives to growers. Such initiatives provide an opportunity for ag retailers to connect their growers to supply chain programs that reduce the risks associated with change.

THINK ABOUT IT. In what supply chain partnerships or initiatives are your growers already engaged?

WATCH THE SEGMENT.

QUESTION(S).

Can you think of a major consumer brand or retail company that has made a public sustainability goal?

What risks might be mitigated with cost-share incentives for growers?

Segment 16 (What Does This Mean?)

SUMMARY. Measuring environmental performance with your growers provides you and your company with several potential business opportunities. Your business can be recognized as the go-to expert in sustainability analysis and insights.

THINK ABOUT IT. What services do you already provide to your growers that complement the sustainability concepts in these modules?

WATCH THE SEGMENT.

QUESTION(S).

What are two potential business opportunities for your company in this space?

Segment 17 (Review)

SUMMARY. You should now have a basic understanding of the value of measuring sustainability for your customers and your own business, how to communicate improvements, how to understand a Fieldprint® analysis, and how to tell a story about your role in improving sustainability in your customers' operations.

THINK ABOUT IT. What might be the next step you take with your growers to help them measure their sustainability performance?

WATCH THE SEGMENT.

QUESTION(S).

What might be the value of measuring sustainability performance for your customers and business?

How can you use sustainability measurement tools to tell a credible story to your community and to the supply chain?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. What questions are your customers likely to ask if you introduce the concept of measuring the sustainability performance of their operation?

Agronomist Focus Example. What do your farmer-facing staff need in order to run, interpret and make recommendations based on a Fieldprint® analysis?

Company Focus Example. How can measurement of sustainability performance be integrated with the technical support your business offers your customers?

THE FARMER BUSINESS CASE FOR SUSTAINABILITY

Segment 1 (Doing Well by Doing Good)

SUMMARY. In today's price-constrained market, it is important to highlight the financial benefits of improving sustainability outcomes on the farm.

THINK ABOUT IT. What are some reasons your customers might be reluctant to engage in a conversation about sustainability?

WATCH THE SEGMENT.

QUESTION(S).

Which of your customers are most likely to take risks? Least likely?

Who do your customers trust most for advice?

Segment 2 (Sustainability Review)

SUMMARY. Sustainability is about the current and future well-being of the system as a whole.

THINK ABOUT IT. What are the boundaries of the system in which you work with your customers?

WATCH THE SEGMENT.

QUESTION(S).

What are the three components of sustainability?

What are the drawbacks of implementing one sustainability practice without considering other aspects of the farm management system?

Segment 3 (Farming With an Eye Toward the Future)

SUMMARY. Improving the sustainability of our agricultural production systems is a long game and requires a systems approach.

THINK ABOUT IT. What is the longest time frame you think about when working with your grower customers?

WATCH THE SEGMENT.

QUESTION(S).

What does improving the sustainability of agricultural production systems seek to ensure for future generations?

What benefits of improved soil health are mentioned in the segment?

Segment 4 (Reduced Financial Risk)

SUMMARY. Sustainability is often about reducing the risks to your customers' operations.

THINK ABOUT IT. What are some of the risks your customers face?

WATCH THE SEGMENT.

QUESTION(S).

How might sustainability practices improve your customers' profit margins?

How might improved sustainability in their operations increase market access for your growers?

Segment 5 (Technical Support)

SUMMARY. As the expert and your customers' trusted adviser, you are a crucial partner in helping your customers become more efficient and reduce risks to their operations.

THINK ABOUT IT. What are some assets that make you a valuable source of support for your growers?

WATCH THE SEGMENT.

QUESTION(S).

What are three areas where you can probably bring insights to your growers?

How can you strengthen trust with your customers?

Segment 6 (Agronomic Guidance)

SUMMARY. Agronomic guidance is the cornerstone of how you can provide sustainability services to your customers.

THINK ABOUT IT. What agronomic concepts might be important in helping farmers improve the sustainability of their operations?

WATCH THE SEGMENT.

QUESTION(S).

What expertise can you bring to bear if one of your customers wants to integrate cover crops into its farm management system?

What organizations in your area are available to help you navigate sustainability concepts that are new to you or your company?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Ask team members to identify one customer that is ready to make some changes in its operation to boost its sustainability.

Agronomist Focus Example. Who on the team has experience and expertise in this area? What do the others need to boost their confidence?

Company Focus Example. What are the benefits to the company from helping your customers be more efficient?

Segment 7 (Reducing Costs and Increasing Efficiency)

SUMMARY. Efficiency is the key to sustainability.

THINK ABOUT IT. In what areas are your customers least efficient?

WATCH THE SEGMENT.

QUESTION(S).

Which SPARC module can you revisit to review how agronomists are leading the way to make agriculture more sustainable?

In what ways might you help your growers be more efficient?

Segment 8 (USDA Example)

SUMMARY. Precision agriculture technology can result in significant cost savings.

THINK ABOUT IT. How are your customers using precision ag technology today?

WATCH THE SEGMENT.

QUESTION(S).

According to the study, which area of precision ag may lead to the greatest savings for your growers?

What is one way in which you can help your farmers maximize the benefits of precision ag technology?

Segment 9 (Texas Study)

SUMMARY. Conservation tillage leads to increased yields as well as cost savings in cotton and sorghum.

THINK ABOUT IT. How would you describe the tillage practices of your current customers?

WATCH THE SEGMENT.

QUESTION(S).

What practices were compared in the study?

According to the segment, what production costs were included in the study?

Segment 10 (Texas Study, Continued)

SUMMARY. Conservation tillage reduced costs and increased yields in a study.

THINK ABOUT IT. How would you work with your customers to compare the performance of different tillage practices in their management systems?

WATCH THE SEGMENT.

QUESTION(S).

What were the cost reductions that offset increases in crop protection and harvest expense increases?

Why did yield increase in plots that were conservation tilled?

Segment 11 (South Dakota Example)

SUMMARY. Farmers like to learn from other farmers about their experiences.

THINK ABOUT IT. How might you elevate the stories of your own customers for their communities, the supply chain and consumers?

WATCH THE SEGMENT.

QUESTION(S).

For how long has Jared Questad been practicing no-till?

What happened to convince him to stop tilling his hills?

Segment 12 (Soil Health Partnership)

SUMMARY. The Soil Health Partnership might be a great resource for you and your growers on your journey to improve the sustainability of your customers' operations.

THINK ABOUT IT. What factors might you include if you were going to help a customer introduce and benefit from cover crops as a part of the farm management system?

WATCH THE SEGMENT.

QUESTION(S).

Why did Dave Moose decide to integrate cover crops with his farm management system?

What reasons did he give for farming the way he does?

Segment 13 (Midwest Case Studies)

SUMMARY. Cover crops and no-till practices can help Midwest corn and soy farmers realize economic benefits in their operations.

THINK ABOUT IT. How many of your customers are already integrating cover crops or reduced tillage practices within their farm management systems?

WATCH THE SEGMENT.

QUESTION(S).

On an average per-acre basis, how much did net farm income increase in the study?

What costs were included in the study, according to the end of the segment?

Segment 14 (Diaz Farm)

SUMMARY. In no-till scenarios like the Diaz farm, cover crops can be used to further prevent erosion. Read their story at http://www.daturesearch.com/wp-content/uploads/Dan-Diaz-Farm_FINAL_v2.pdf.

THINK ABOUT IT. Are there any farmers in your area who will champion the use of cover crops?

WATCH THE SEGMENT.

QUESTION(S).

How long did Dan Diaz have to use cover crops before seeing a positive return on investment?

Why did he continue to use cover crops even though he experienced a negative ROI in the first few years?

Segment 15 (Kuhns Case Study)

SUMMARY. In no-till scenarios, soil health benefits the Kuhns family to achieve resilient yields during drought years. Read their case study at http://www.daturesearch.com/wp-content/uploads/Stan-Kuhns-Farm_final.pdf.

THINK ABOUT IT. What practices might allow your customers to be more resilient in bad weather years?

WATCH THE SEGMENT.

QUESTION(S).

On a per-acre basis, what was the low end of the revenue increases generated by the Kuhns' operation?

What sometimes needs to happen before growers realize all of the benefits of improving their sustainability?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Which of your growers would enjoy being highlighted as a success case for conservation practices?

Agronomist Focus Example. Ask the group to discuss their thoughts on the possible strengths and weaknesses of the case studies in the modules, as well as how they might handle the research differently.

Company Focus Example. Ask team members what practices their company is willing and able to support, through either products or services.

Segment 16 (Other Ways)

SUMMARY. When you think creatively, there is no limit to the number of benefits your customers can realize by improving the sustainability of their systems.

THINK ABOUT IT. What are some ways that your customers can benefit beyond those mentioned so far in the module?

WATCH THE SEGMENT.

QUESTION(S).

Based on what has been covered in the module so far, how might sustainability reduce risk in your customers' operations?

Based on the information in this module, what cost reductions might your growers realize by integrating sustainability practices in their management systems?

Segment 17 (USDA – NRCS)

SUMMARY. You can connect your customers with the variety of programs that USDA's Natural Resources Conservation Service offers to help growers improve the sustainability of their operations.

THINK ABOUT IT. What NRCS programs should your growers be taking advantage of?

WATCH THE SEGMENT.

QUESTION(S).

What are some areas in which the Agricultural Management Assistance program offers technical assistance?

What are advantages of becoming a certified Technical Service Provider?

Segment 18 (Expanding Market Access)

SUMMARY. The supply chain and its consumer customers increasingly desire a food system that increases both farmer profits and environmental quality.

THINK ABOUT IT. What markets are your growers taking advantage of currently?

WATCH THE SEGMENT.

QUESTION(S).

To what pressures are downstream buyers increasingly responding in their purchasing decisions?

What is the key to expanding market access for growers?

Segment 19 (Supply Chain Collaboration)

SUMMARY. Diverse supply chain organizations are starting to work together to reduce the risks of shifting farm management practices.

THINK ABOUT IT. With what examples of supply chain collaboration are you familiar?

WATCH THE SEGMENT.

QUESTION(S).

What types of organizations are working together in the Unilever sustainable soy project?

In the sustainable soy project, what can growers do to be eligible for the crop insurance discount?

Segment 20 (Ensuring the Freedom to Operate)

SUMMARY. Voluntarily improving the sustainability of farms now may help prevent government regulations in the near future.

THINK ABOUT IT. What regulations are currently or have recently been proposed in your state that would affect your customers' businesses?

WATCH THE SEGMENT.

QUESTION(S).

As an adviser, what role can you play in helping farmers protect their freedom to operate?

Segment 21 (Review)

SUMMARY. You have influence with your customers that can help them realize the value of improving the sustainability of their farm management systems.

THINK ABOUT IT. How might you improve your service to your growers in terms of sustainability?

WATCH THE SEGMENT.

QUESTION(S).

As an adviser, what assets do you bring to a conversation with your growers about sustainability?

What types of growers are sought after by supply chain companies?

Segment 22 (Conclusion)

SUMMARY. It is crucial that you be able to communicate with your customers about the value and potential economic benefits of integrating more sustainable practices into the farm management system.

THINK ABOUT IT. What is the biggest obstacle for you in talking about sustainability with your growers?

WATCH THE SEGMENT.

QUESTION(S).

For what types of farmer questions should you prepare to respond in talking about sustainability?

Why might specific examples of actual farmers improving the sustainability of their operations be important in your conversations with growers?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Ask team members to reflect on specific customer experiences with diverse partners from the supply chain in sustainability projects and programs, and what might be improved from those experiences.

Agronomist Focus Example. Ask the group to discuss supply chain projects or NRCS initiatives that are taking place in your area, and what personal experiences they have had with those activities.

Company Focus Example. Ask team members what their company is doing to engage with other actors from the supply chain in creative partnerships.

ADDITIONAL RESOURCES

Farm finance and conservation: How stewardship generates value for farmers, lenders, insurers and landowners, available at https://www.edf.org/sites/default/files/documents/farm-finance-report.pdf.

The South Dakota NRCS has published a series of videos highlighting the economic benefits of sustainable agriculture at https://www.youtube.com/user/NRCSSouthDakota.

DEVELOPING A SUSTAINABILITY PROGRAM

This module helps ag retailers think through developing a sustainability program within their own organization.

Segment 1 (Sustainability)

SUMMARY. Sustainability is about the current and future well-being of the system as a whole.

This segment reviews the definition of sustainability and how a systems approach is needed to improve environmental outcomes in production agriculture.

THINK ABOUT IT. What are the boundaries of the system in which you work with your customers?

WATCH THE SEGMENT.

QUESTION(S).

What is an example of “social” sustainability?

What are some examples of agronomic practices that, when implemented together, have synergistic effects? For example, in human health, combining regular exercise with a healthy diet has greater health benefits than exercise or diet alone.

Segment 2 (Introduction)

SUMMARY. This module is about putting the pieces of the sustainability program puzzle together to diversify your offerings, increase your competitiveness and grow your customer base. You will learn about engaging customers around sustainability, communicating your achievements, examining your current offerings and building a sustainability program.

THINK ABOUT IT. What products and services does your company currently offer that are or could be part of a sustainability program?

WATCH THE SEGMENT.

QUESTION(S).

Name at least three potential benefits of developing a sustainability program.

What sustainability programs have you heard about or experienced at other companies? What are some of the elements of those programs?

Segment 3 (Learning Objectives)

SUMMARY. Your objectives for this module include: (a) understand why your business supports farmers in their sustainability journeys; (b) review your company's products and services; (c) appropriately assemble those products and services to improve environmental outcomes; (d) build a communications strategy for sustainability; (e) summarize your business's accomplishments in this space; and (f) identify opportunities to promote your sustainability services to growers.

THINK ABOUT IT. What information would you want before you begin to create or strengthen your sustainability program?

WATCH THE SEGMENT.

QUESTION(S).

Name at least four learning objectives for this module.

Segment 4 (Why Develop a Sustainability Program?)

SUMMARY. Sharing agriculture's sustainability story is important. Consumers are critical of production methods, they demand greater transparency from the supply chain, and they desire products and services that align with their values.

THINK ABOUT IT. What values do you bring to bear when you shop for products and services for your family?

WATCH THE SEGMENT.

QUESTION(S).

What are at least two examples of consumer demands on agricultural supply chain companies?

Consider the eight environmental metrics discussed in previous modules. What examples can you give of consumer values that intersect with three of them?

Segment 5 (Why Develop a Sustainability Program?)

SUMMARY. Millennials and Generation Z seek to understand where food comes from and how it is produced, but they are not the sole driver of this shift.

THINK ABOUT IT. What age groups are part of Millennials and Generation Z?

WATCH THE SEGMENT.

QUESTION(S).

According to the headline in the module, what do the high-performing companies demonstrate?

What percentage of the market is composed of Millennials and Generation Z?

Segment 6 (Why Develop a Sustainability Program?)

SUMMARY. Companies are reacting to information that most consumers are willing to pay more for sustainably produced goods. Consumers have a wide range of concerns about their food and the impact of its production on our natural resources.

THINK ABOUT IT. What food concerns does your family have?

WATCH THE SEGMENT.

QUESTION(S).

Where do consumers get their information about the impacts of agriculture on the environment?

What drives the consumer desire for organic ingredients or production methods?

Segment 7 (Why Develop a Sustainability Program?)

SUMMARY. Tracking and reporting environmental outcomes is essential for companies to be able to tell consumers a credible story about the quality of their products. There are resources available to help you and your company be part of that story.

THINK ABOUT IT. Would it be valuable to your growers if they could tell a credible sustainability story?

WATCH THE SEGMENT.

QUESTION(S).

According to the module, what can serve as an element of product quality for consumers?

What organization works with ag retailers to assist with sustainability tracking and reporting?

Segment 8 (Why Develop a Sustainability Program?)

SUMMARY. Demand for sustainable agricultural production is only increasing, and that will lead to continued changes in how agribusiness responds. The question is who will lead, who will follow and who will fall behind as things continue to evolve.

THINK ABOUT IT. During your time in this profession, what examples can you remember of your company adapting to a changing business environment?

WATCH THE SEGMENT.

QUESTION(S).

According to the module, what are the three options for each company as it thinks about how to respond to sustainability demands?

In what areas is your company currently leading? Following?

Segment 9 (Why Develop a Sustainability Program?)

SUMMARY. You may not have to dramatically shift your offerings as you build a sustainability program. You may just need to think creatively about how to present your current products and services.

THINK ABOUT IT. How has your company repositioned its products and services in the past, either to respond to customer demand or to enter a new market?

WATCH THE SEGMENT.

QUESTION(S).

How might your company's agronomists work with your company's marketing team to help reposition products and services in terms of sustainability?

What products and services does your company offer that might fit well in a sustainability program?

Segment 10 (Why Develop a Sustainability Program?)

SUMMARY. There is no one-size-fits-all approach to developing a sustainability program. However, some considerations can help almost any business succeed in this area.

THINK ABOUT IT. What are some of the questions your company should ask whenever it is considering how to implement a new program?

WATCH THE SEGMENT.

QUESTION(S).

What are your company's stated values?

What connection is there between sustainability and your company's values?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Compile a list of your customers' top ten values.

Agronomist Focus Example. Ask the group to share their thoughts about the need to respond to consumer demand, how credible that need is and how they think that demand might change over time.

Company Focus Example. When was the last time your company revisited its mission and vision statements? Do they reflect all three of the pillars of sustainability?

Segment 11 (Your Products and Services)

SUMMARY. Every input your company sells has an impact on natural resources. Consider the role that some of your products and services might play in improving the sustainability performance of your growers' operations.

THINK ABOUT IT. What is one example of how one of your company's existing products might improve environmental impact on or off the farm?

WATCH THE SEGMENT.

QUESTION(S).

Name a product or service that could improve sustainability in three of the given metrics.

Where can you go for guidance on how to connect your products and services to the metrics in the SPARC modules?

Segment 12 (Your Products and Services)

SUMMARY. If your company offers irrigation expertise, you might work with your customers to help them collect and analyze data that helps them better understand their water use efficiency.

THINK ABOUT IT. How might making improvements in one aspect of environmental sustainability also positively affect another?

WATCH THE SEGMENT.

QUESTION(S).

What are three benefits of improving a grower's water use efficiency?

Choose a metric not shown in the segment. What are three benefits of improving sustainability in that area?

Segment 13 (Your Products and Services)

SUMMARY. Using an example from plant nutrition, consider how you might better promote knowledge and use of 4R Nutrient Stewardship among your customers. That might include precision application, N stabilizers or custom nutrient mixes.

THINK ABOUT IT. Do you mention 4R Nutrient Stewardship when you talk about crop nutrition with your growers?

WATCH THE SEGMENT.

QUESTION(S).

What certification is available to CCAs to enhance their ability to provide effective guidance to growers on the 4Rs?

How do you know whether a grower is effectively using the 4Rs?

Segment 14 (Your Products and Services)

SUMMARY. Water quality is not the only benefit of 4R Nutrient Stewardship. There are a number of natural resource improvements that can be realized through nutrient stewardship.

THINK ABOUT IT. What do you need to know to assess whether a grower is effectively implementing the 4Rs?

WATCH THE SEGMENT.

QUESTION(S).

What are three benefits realized when a grower effectively implements 4R Nutrient Stewardship?

Name four sustainability metrics that improve when a grower effectively adopts the 4Rs.

Segment 15 (Your Products and Services)

SUMMARY. Land preparation and crop protection products and services can have a systemic impact on your growers' sustainability.

THINK ABOUT IT. From those already offered by your company, what two products or services would you combine to help growers improve their sustainability?

WATCH THE SEGMENT.

QUESTION(S).

Name two land prep products or services and how they can affect environmental outcomes.

How does taking an integrated pest management approach to crop protection affect sustainability outcomes?

Segment 16 (Your Products and Services)

SUMMARY. Your company probably already offers a number of products and services that can be part of your sustainability program. For those that your company does not offer, there are potential partnerships that can benefit your growers and set you apart as a company that is looking out for your customers' best interest.

THINK ABOUT IT. What two teams within your company would probably need to communicate more in order to make a sustainability program work well?

WATCH THE SEGMENT.

QUESTION(S).

Of those listed in the module, which products and services does your company already offer?

Which of your local competitors offers one or more of the products and services that your company does not? What opportunity does that present for your growers?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Have your customers been asking for products or services that you do not currently offer? Could those be incorporated into your product lineup as part of a sustainability program?

Agronomist Focus Example. What products and services do the agronomists think should be included in a sustainability program?

Company Focus Example. Ask team members what products or services the company should invest in to build the sustainability program.

Segment 17 (Communication Strategy)

SUMMARY. In addition to connecting your sustainability program to the company's values, vision and mission, your company should create or adapt your communications strategy to support your sustainability program. The strategy should at least address why you are developing the program, what sustainability means to your company and how your program works.

THINK ABOUT IT. What role does your company's existing communications strategy play in your current work?

WATCH THE SEGMENT.

QUESTION(S).

What is a vital part of ensuring the success of your sustainability program?

Which of your team members are enthusiastic about sustainability? How might you get those team members that are less enthusiastic on board?

Segment 18 (Communication Strategy)

SUMMARY. Your program's success will depend in part on having all business units take part in these conversations. The more diverse voices you include, the more sustainable your program will be.

THINK ABOUT IT. What areas of your business do you think might NOT want to create a sustainability program? Why?

WATCH THE SEGMENT.

QUESTION(S).

What concerns might a company's grain elevator staff have about implementing a sustainability program?

Why is it important to have a diverse set of perspectives helping to shape the company's sustainability program?

Segment 19 (Professional Development)

SUMMARY. A key component of your sustainability program is staff recognition. Consider the strengths of your team members, areas in which they can improve and how the company can acknowledge their contributions to the program.

THINK ABOUT IT. How does your company reward achievement in its existing programs?

WATCH THE SEGMENT.

QUESTION(S).

What areas of strength do the company's staff already display?

How does your team already include sustainability in conversations with growers?

Segment 20 (Professional Development)

SUMMARY. The science behind agronomy and sustainability will always change, so continuous improvement of your staff's education is a key element of sustainability. That will send a message to your team about your company's loyalty and its commitment to their success.

THINK ABOUT IT. How does your company currently promote continuing education?

WATCH THE SEGMENT.

QUESTION(S).

What might be one benefit of becoming a CCA?

What does your company show the staff through a commitment to continuous improvement in education?

Segment 21 (Professional Development)

SUMMARY. Your staff should have a clear sense of how the company's work fits into the sustainability of the overall supply chain. Your staff may want to understand the impact of your sustainability program, as well as how it connects to partners in the community and beyond.

THINK ABOUT IT. What role(s) does your company currently play in the supply chain?

WATCH THE SEGMENT.

QUESTION(S).

How might your company bridge the gap between growers and consumers?

What event might your agronomists consider to further develop their knowledge and connections in sustainability?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. Ask team members to talk about what strengths your grower customers have mentioned about the company or specific agronomists.

Agronomist Focus Example. Ask the group how they would prefer to be recognized for their contributions to the company's sustainability program.

Company Focus Example. Ask team members what company policies might be adapted for use within the context of a sustainability program.

Segment 22 (Summarize Your Accomplishments)

SUMMARY. Telling your company's sustainability story is an important outcome of developing a program. Each staff member should understand how his or her professional goals align with the company's sustainability goals.

THINK ABOUT IT. What connections do you see between your current annual goals and sustainability services?

WATCH THE SEGMENT.

QUESTION(S).

How do you currently communicate your professional achievements?

What mechanisms does your company have in place to reward individual achievement?

Segment 23 (Internal Communications)

SUMMARY. Internal conversations should focus on the sustainability of the farm management system. This conversation needs to go beyond sales figures and get to the ways your work has a broader impact on the community.

THINK ABOUT IT. What are some of the best ways to communicate with your fellow staff members about sustainability outcomes?

WATCH THE SEGMENT.

QUESTION(S).

What are two examples of sustainability trade-offs within a farm management system?

What mechanisms does your company have in place for sharing information among staff members?

Segment 24 (External Communications)

SUMMARY. External conversations with downstream companies and the community surrounding your business are just as important as communication within your company.

THINK ABOUT IT. What are some examples of how your company communicates to external audiences?

WATCH THE SEGMENT.

QUESTION(S).

What are two things you must define as part of your external communications efforts?

Why should you have different communications plans for supply chain partners and your local community?

Segment 25 (Measure Impact)

SUMMARY. Downstream supply chain companies often approach measuring impact by quantifying how many acres are managed as part of a sustainability program. Document the specific impact that your advice is having on the ground.

THINK ABOUT IT. How many acres do your growers manage?

WATCH THE SEGMENT.

QUESTION(S).

Why might it make sense to measure impact in terms of acres managed under your program?

How can you demonstrate the impact of your management advice?

Segment 26 (Promote Your Program)

SUMMARY. When you establish yourself as a leader in sustainability, you can strengthen your relationship with existing customers as well as grow your customer base by responding to the pressure that growers are feeling. This is also a great way to work with your community and the supply chain.

THINK ABOUT IT. What is your company's current reputation in your community in terms of sustainability?

WATCH THE SEGMENT.

QUESTION(S).

What sustainability initiatives exist in your community that you might connect with as a part of your sustainability program?

What potential benefits can your company realize by working with other firms in the supply chain?

Segment 27 (Customer Testimonials)

SUMMARY. Growers want to hear about the sustainability experiences of other growers. Data about your customers' sustainability experiences will be a key tool in promoting your program.

THINK ABOUT IT. Which of your growers already have a great sustainability story to tell?

WATCH THE SEGMENT.

QUESTION(S).

Why are customer testimonials such a powerful communications tool?

What are the four key components of a comprehensive customer testimonial?

Segment 28 (Emails and Newsletters)

SUMMARY. Emails and newsletters are also effective marketing tools. If you time them right, those tools can promote engagement with you around your program.

THINK ABOUT IT. How do your customers prefer to receive information from you?

WATCH THE SEGMENT.

QUESTION(S).

What are some timing considerations when promoting to your customers and other established partners?

What types of stories might you help your customers tell through your print communications?

Segment 29 (Promote Your Program)

SUMMARY. How you market your sustainability program depends on your customers and whatever other audiences you are trying to reach. There are a range of factors to consider as you design your marketing plan.

THINK ABOUT IT. How does your company currently market its programs?

WATCH THE SEGMENT.

QUESTION(S).

What communication tools has your company invested in?

How does your company track engagements with the community?

Segment 30 (Marketing Outlets)

SUMMARY. Most consumers get their information from the Internet. You should combine that outlet with whatever others you find appropriate given your audiences.

THINK ABOUT IT. How frequently is your company website updated?

WATCH THE SEGMENT.

QUESTION(S).

Why is it important to house information about your sustainability program on your company's website?

What are five examples of useful marketing outlets for your program?

Segment 31 (Showcase Adoption Rates)

SUMMARY. Adoption trends can be a great tool with which to engage existing and potential customers. There are resources available to support your knowledge and understanding of trends.

THINK ABOUT IT. Do you currently record and track adoption trends among your customers?

WATCH THE SEGMENT.

QUESTION(S).

Why are adoption trends useful in promoting your sustainability program?

What are two examples of potential partners in identifying trends in your area?

Segment 32 (Return on Investment)

SUMMARY. Return on investment is a useful metric, and the more locally appropriate the data the more useful it is. If you find there is a lack of published data, then reach out to your local Extension office for appropriate resources.

THINK ABOUT IT. How do you currently interact with your local Extension office?

WATCH THE SEGMENT.

QUESTION(S).

Who else in your area might be able to provide ROI data?

What relationship currently exists between your company and the local Extension office?

Segment 33 (Survey Your Customers)

SUMMARY. You can survey your customers to learn more about the ROI of certain practices within the context of the overall farm budget. You might then use those data to show growers how others are profiting from improving the sustainability of their operations.

THINK ABOUT IT. On what topics have you surveyed your growers in the past?

WATCH THE SEGMENT.

QUESTION(S).

How might you use survey information to make the case to growers about sustainability?

Does your company track customer ROI?

Segment 34 (Be Prepared with Evidence)

SUMMARY. In order to tell a credible story to your audiences, you should have data to support your achievements. Based on published studies, your company can better understand the potential behind specific products.

THINK ABOUT IT. What data do you use to show your customers that your offerings will do what they are designed to do?

WATCH THE SEGMENT.

QUESTION(S).

Why is it important for your company to have data on the effectiveness of products and services you sell?

Name three factors that might cause the results in published studies to vary.

Segment 35 (Distribute Printed Materials)

SUMMARY. Your agronomists can hand out print resources to growers when meeting in person. These branded materials can provide valuable guidance to your customers in the absence of their agronomist.

THINK ABOUT IT. What printed materials do you already bring with you to grower meetings?

WATCH THE SEGMENT.

QUESTION(S).

Where can you learn about the issues your companies might address with growers?

What four elements should you incorporate into your printed materials?

Segment 36 (Leadership through Service)

SUMMARY. "Leadership through service" can be an effective value that guides your work with customers. Sharing lessons learned can be extremely valuable.

THINK ABOUT IT. How do your growers feel about sharing financial and other outcome data with you?

WATCH THE SEGMENT.

QUESTION(S).

What fear needs to be addressed as part of this work?

What is the value of growers and ag retailers sharing their experiences in sustainability?

Segment 37 (Create Short Videos)

SUMMARY. Videos are an increasingly important way to engage customers. This is another form that your grower testimonials can take.

THINK ABOUT IT. Does your company have a YouTube or other video-sharing channel?

WATCH THE SEGMENT.

QUESTION(S).

What might be the benefits of using videos to communicate about your sustainability work?

What qualities make a video an effective communication tool?

Segment 38 (Examples)

SUMMARY. Ceres Solutions and Sunrise Cooperative have both shown leadership in providing sustainability services to growers. Both of these companies focus on cover crop services and provide keys to their success. Visit the case studies online at http://www.daturesearch.com/projects/.

THINK ABOUT IT. What interactions have you had with either Ceres or Sunrise?

WATCH THE SEGMENT.

QUESTION(S).

Why do these companies focus on cover crops if those crops themselves are not highly profitable?

Which keys to success from Ceres and Sunrise might be important to apply to your sustainability program?

GUIDING QUESTIONS FOR GROUP

Customer Focus Example. What are the age demographics of your customers? Where will they look in the future for technical advice?

Agronomist Focus Example. How do your agronomists communicate with customers? How comfortable are they using social media and other technologies?

Company Focus Example. How might the company communicate differently with customers, supply chain companies and your community about sustainability?

Sustainability Programming for Ag Retailers and CCAs (SPARC)

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