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Farm Management Education: Insights from Industry Stakeholders



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Abstract

Professional farm managers use both work experience and higher education to develop skills necessary for the changing needs of modern agriculture. We asked professional farm managers their perspectives on the essential topics, skills, and competencies that should form the core of farm management education. Results suggest that, in addition to financial analysis and general economics, farm management education needs to focus on “soft skills” such as communication with clients and landowners, negotiations, and relationship management.

INTRODUCTION

The dynamic landscape of modern agriculture has changed significantly as the structure of farms in the U.S. has changed over time. Today’s farm managers are tasked with navigating a complex interplay of technological advancements, market dynamics, environmental sustainability, and regulatory compliance. Within this rapidly evolving climate, the need for farm managers’ services is on the rise. For example, non-operator landlords (owners of farmland who are not themselves engaged in farming) account for 80% of rented farmland acres in the United States (Bigelow et al., 2016). The majority of these acres were acquired through inheritance (ibid), and therefore many farmland owners lack the necessary skill and experience to manage this land themselves. As the demands on these managers continue to evolve, so must the educational foundations that prepare them.

Work experience (experiential learning) and higher education have long been recognized as the cornerstone of professional development for farm managers. The fusion of age-old agricultural knowledge with contemporary knowledge has created a demand for innovative pedagogical approaches that empower aspiring farm managers to tackle challenges with the necessary skills to be successful. Utilizing in-class games, managerial competitions, and active learning has been a staple in farm management education for decades, with computer-based farm management simulations first introduced in the 1960s (Boehlje et al., 1973; Longworth, 1970; Menz & Longworth, 1976). While the pedagogy and educational delivery methods have modernized, the question remains if the course concepts or topics have followed this modernization. This article looks to identify and categorize the topics and skills that should be incorporated into higher education farm management curricula and classrooms based on feedback from farm management professionals. While input and feedback are often solicited directly from producers, collecting information from professional farm managers has been limited. Currently, portions of an undergraduate degree can fulfill some requirements for obtaining the professional farm manager accreditation (ASFMRA, 2022). Because of this “crossover,” ensuring that farm management curriculum is modern and topical is

important. The results provide farm management educators with a practical view from current professionals on what skills or knowledge-building they should incorporate into their curriculum.

Over the years, farm management education has expanded significantly, mirroring the transformations within the broader agricultural sector. Historically rooted in practical know-how passed down through generations, farm management education has transitioned from the traditional “farm school” approach to more structured academic programs offered by universities and specialized institutions. The focus has broadened from the cultivation of crops alone to encompass intricate aspects of agribusiness, environmental regulations, sustainability, technological advancements, data management, resource management, and market dynamics. At the same time, the need for “soft skills” such as communication, collaboration, and interpersonal relationship-building (Gilbert and Wingrove, 2019; Sandlin et al., 2018; Vetter and Wiggenbach, 2019; Wilson et al., 2019) is garnering increased focus across the agriculture industry. This set of competencies could complement the technical skills that prospective farm managers gain on the job and in the classroom.

A transformation in pedagogical strategies has accompanied this shift in the landscape of agriculture. The emergent nature of technology, data analytics, and precision agriculture has necessitated a departure from the conventional classroom to a more holistic and experiential learning environment. The integration of case studies, simulations, and industry collaborations has bridged the gap between theory and practice, equipping students with theoretical knowledge and the critical thinking and problem-solving skills essential for success in a rapidly changing field.

SURVEYING INDUSTRY PERSPECTIVES: A HOLISTIC APPROACH TO CURRICULUM DEVELOPMENT

To gain deeper insights into the evolving educational needs of modern farm managers, this article presents the results of a survey conducted with professional farm managers, agricultural experts, and industry stakeholders at the 2022 ASFMRA Annual Meeting. The survey sought to collect perspectives on the essential topics, skills, and competencies that should form the core of farm management education. By capturing the opinions of those working directly in the profession of farm management, this study aims to outline a

curriculum that aligns with the practical demands of the industry.

In the following sections, we delve into the survey’s key findings, shedding light on the topics and skills identified by industry experts as integral in the education of future farm managers. By juxtaposing these insights with evolving pedagogical approaches, we aim to contribute to the ongoing discourse surrounding farm management education’s pivotal role in shaping the agricultural landscape of tomorrow.

Survey: Data Collection

The objective of our survey was to ascertain what industry professionals and key stakeholders believed to be important for consideration in the development of farm management curriculum. The complete survey is included in the appendix. The survey was anonymous and followed all IRB protocols (Oklahoma State University IRB-22-450). Basic demographic information was collected but was not a central component of the study. Following the basic demographic questions, three open-ended questions were asked: 1) What would you consider the core concepts or topics that would need to be covered in farm management training or classes?, 2) What are the skills needed to be a professional farm manager?, and 3) What topics or concepts (outside of core topics mentioned in E) do you see coming in the future that need to be included in farm management training or classes?

The workshop session resulted in a collection of 32 responses, with respondents from 14 different states, predominantly the Midwest (53%, N=17). States included in the Midwest category were Iowa, Illinois, Ohio, and Indiana. Mid-South respondents were from Tennessee, Arkansas, and Kentucky. Great Plains respondents were from Oklahoma, Nebraska, Oklahoma, and Kansas. The Coastal respondents included those from North Carolina, New York, and Idaho. You can see the regional distribution in Table 1.

Fifty percent of respondents indicated they were 57-72 years of age, with 94% of all respondents being male. Respondents were also asked about their years of experience in professional farm management, and the participant average was 28 years of experience. The distribution of age and gender can be seen in Table 2.

Data Coding

Data from the workshop session was collated into NVivo. This software allows automatic coding of the survey responses across attributes such as gender,

age, states, and regions and enables thematic coding of the responses based on patterns that emerge from the data. The survey responses were classified into 32 cases (each case representing a survey respondent). The three open-ended questions were coded as three parent themes: core topics, skills needed, and future topics. For each of these three parent codes, the responses of each case, i.e., each respondent, were then coded into subthemes that form the child nodes, thereby creating a parent-child code pattern that allows the software to record the frequency of subthemes under each parent node. These subthemes were identified by the authors through an iterative process of familiarization with data, generating initial codes, searching for themes, reviewing themes, and final production of the report (Braun and Clarke, 2006). After the themes were finalized, we used the Matrix-Coding Query feature in NVivo to create cross-tabulations of the subthemes under each parent node across the different attributes. All tables and figures used in the paper are based on these cross-tabulations.

RESULTS

Participants in the session were asked three questions about core concepts and professionals skills related to farm management. The first question was, "What would you consider the core concepts or topics that would need to be covered in farm management training or classes?" The answer themes for this question are shown in Figure 1, with specific responses given for each theme listed in Table A1 in Appendix 2.

The themes receiving the highest response frequency were financial analysis, communication, and marketing and general economics. For financial analysis, the primary concepts included capital and investment analysis and enterprise budgeting. This theme represented 35% of the responses to the first question, with examples of responses categorized in this theme including "Investment analysis," "Capital improvement analysis," "Accounting and financial modeling," and "Enterprise budgeting/analysis." These responses make up a category that is historically very important to professional farm managers and highlight the need for technical training in finance and accounting by students wanting to enter this profession.

The next highest response theme, with 16% of responses, was communication. Examples of what respondents said included having general communication and negotiation skills, as well as communicating across generations and helping clients with little farm knowledge to manage

their farm. The importance of the communication category is highlighted by these responses, especially communication across different ages of people (farmers versus landowners) and the added challenge of communicating with absentee landowners who may not have as much first-hand knowledge of the work being done on the farm.

The third theme was marketing and general economics, with 16% of the responses. This category represented a mix of responses that reflected the need for a general understanding of agriculture, markets, and economics. Examples of answers given in this theme category include "risk management," "basic marketing and hedging," and understanding what causes a downturn in agriculture from a historical perspective. This last answer was followed up with a comment about applying this knowledge to current conditions and learning from the past. The average number of years of experience of professional farm managers surveyed in this study was 28 years, which suggests that most farm managers can reflect on their own personal experiences to guide decisions on the farm or ranch. Younger farm managers will have to learn about these experiences through mentoring and other forms of education.

The second question asked of the session participants was, "What are the skills needed to be a professional farm manager?" The response themes are shown in Figure 2, and specific answers are listed in Table A2 in Appendix 2. The most common theme to this question was communication, with 37% of all responses. Some of the responses included "relationship management," "adaptability to working, communicating with various personalities," and meeting "client goals." Communication is a top theme for both questions 1 and 2, indicating a strong sentiment on the part of the respondents that possessing people skills is crucial to the success of a professional farm manager.

The second response theme was analytical skills, which accounted for 21% of the responses. Examples of analytical skills given by the participants included "financial skills," "cash flow analysis," and "budgeting." Again, technical skills like finance and accounting ranked high by respondents and suggest that this training is an essential part of the job.

The two themes of communication and analytical skills were very common responses. Other themes such as management decisions, time management, and understanding legal issues were also mentioned, with 9% of all responses to the second question. Other technical skills such as problem-solving, with responses including "critical thinking" and "crisis

management,” and understanding technology (e.g., “drone and IT skills”), were also mentioned. It is worth noting that in the “other” category, responses included advice such as being a “self-starter,” “life-long learner,” and “well rounded in agriculture.”

The final question for workshop participants was, “What topics or concepts do you see coming in the future that need to be included in farm management training or classes?” The responses to this question were slightly more diversified than the previous two and are presented in Figure 3. Specific answers to the themes are given in Table A3 in Appendix 2. The top response theme was technology applications, with 19% of the responses. Under technology, participants included drone usage and use of technology to monitor farm activities. These responses suggest that farm management is a field where technology will be affecting the day-to-day operations of the manager, and it will be important to have these technology skills to be successful in the profession.

The second most common theme was general agricultural knowledge, with 14% of responses and examples such as understanding all aspects of precision agriculture and seed genetics. It is interesting to note that the general agricultural knowledge responses also reflect updates in technological advances made in agriculture so far and those on the horizon.

The third most common response theme was policy, with 12% of responses. This category includes answers such as “environmental impacts (carbon credits),” “EPA issues,” and “policies and law.” Understanding the regulatory impacts on agriculture from policy changes is important and likely to become more relevant for farmers and landowners in the years to come.

Several other responses were also categorized, including regenerative agriculture, land-related issues, and generational dynamics that reflected answers such as the “how rural America is changing” and “succession strategy.” Again, communication was a common theme in the responses with answers such as “soft skills,” “negotiations,” and “conflict resolution,” which emphasizes the importance of working with people both now and in the future.

CONCLUSIONS

The responses of the session participants to questions about the core concepts needed to teach and develop professional farm managers are probably not too surprising. Financial analysis and general economics

were very highly ranked, and these topics are often taught in undergraduate agricultural economics and agribusiness curriculums across the United States. However, communication was the most frequently cited career skill needed by professional farm managers. While these “people skills” are increasingly demanded across the agriculture industry, they are not commonly taught in a formal classroom setting, making the development of these competencies a challenge. The ability to communicate with clients and landowners, conduct negotiations, and manage relationships are key competencies for professional farm managers. The ability to relate to varying perspectives and personalities will enable farm managers to thrive in an increasingly diverse industry. Internships and other types of job shadowing may help with these skills, but it appears that to meet the opportunities of management jobs in the future, we may need to work more closely with students on speaking, writing, relating to, and interacting with others in a professional manner.

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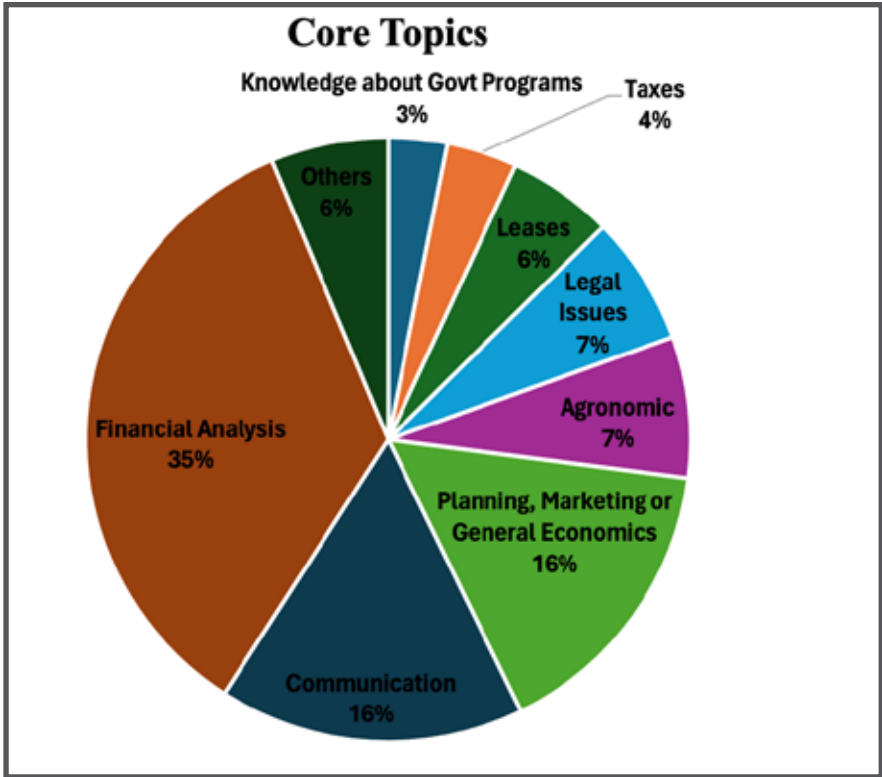


Figure 1. Themes under “What would you consider the core concepts or topics that would need to be covered in farm management training or classes?”

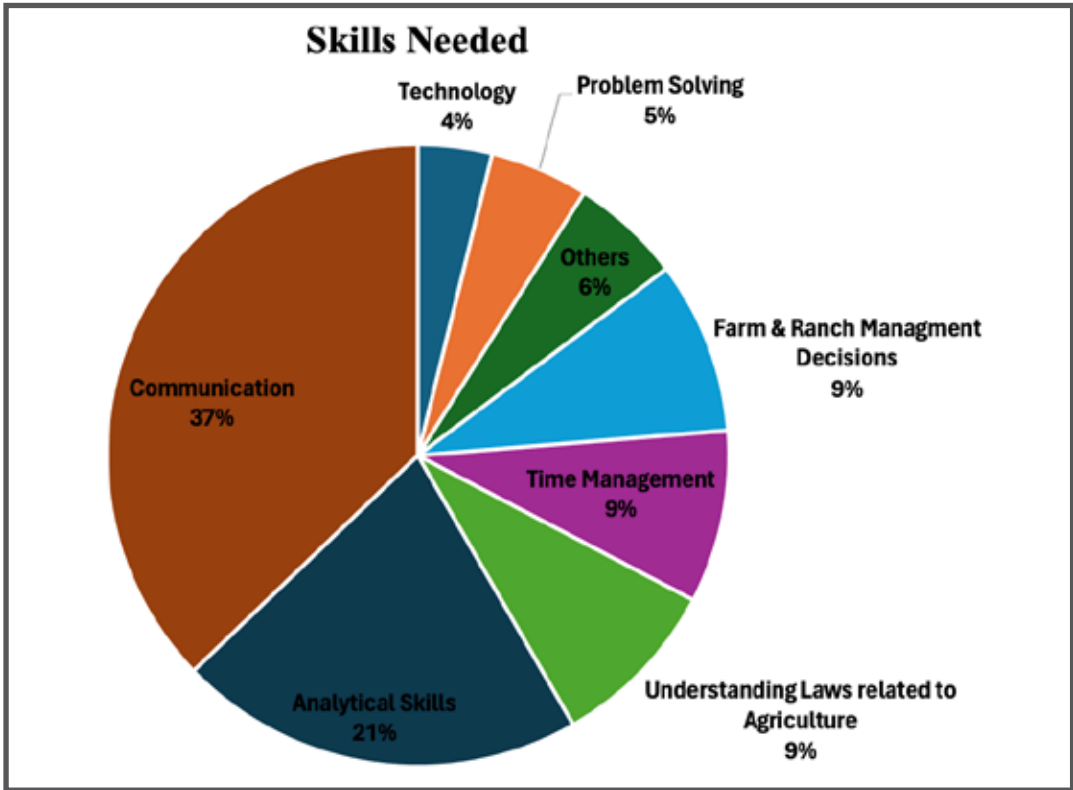


Figure 2. Themes under “What are the skills needed to be a professional farm manager?”

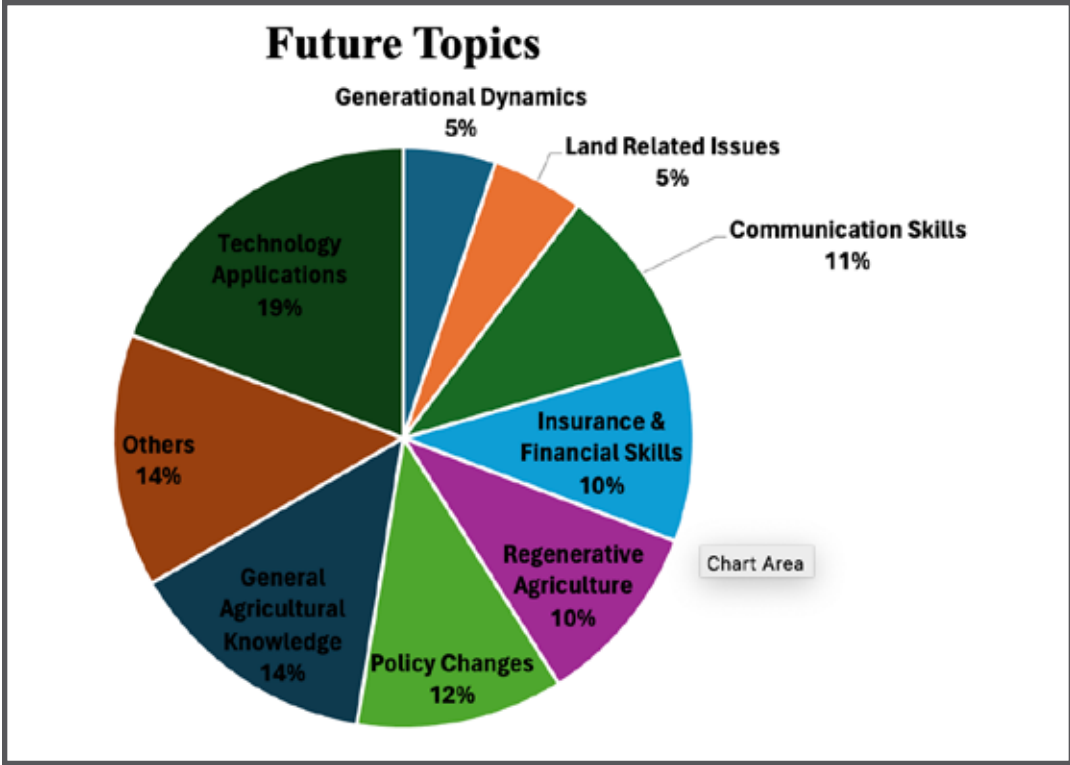


Figure 3. Themes under “What topics or concepts do you see coming in the future that need to be included in farm management training or classes?”

Region	Frequency	Percent
East and West Coast	3	9
Mid-South	4	13
Great-Plains	8	25
Midwest	17	53
Total	32	

Table 2. Demographic Summary Statistics*

Attribute	Frequency	Percent	Mean
Age			
24 to 40	8	25	33
41 to 56	6	19	46
57 to 72	16	50	63
72 to 80	2	6	77
Years of Experience	21		28
Gender			
Female	2	6	
Male	30	94	
Education Level			
Bachelors	21	68	
Masters	6	19	
Doctorate	3	10	
Others	1	3	
Farm Management Training			
Continuing Education	22	71	
Others	6	19	
Extension Workshop	3	10	
Profession/Role/Occupation			
Farm Manager	25	78	
Educator	3	9	
Others	3	9	
Appraiser	1	3	

*For Education Level, Farm Management Training, and Profession/Role/Occupation, the summary statistics are calculated after removing the no-response observations.

APPENDIX

Appendix 1. Data Collection Instrument

Farm Management Content & Curriculum

ASFMRA Lunch Session

November 9, 2022

Demographic Information

Age: _____

Gender: _____

State: _____

Primary professional role/occupation (only pick one):

_____ Appraiser

_____ Farm Manager

_____ Educator (higher education/extension)

Other: _____

How many years of experience have you had in the above role/ occupation? _____

Education: Please select the highest level

_____ High school

_____ Master Degree

_____ Associate Degree

_____ Doctorate Degree

_____ Bachelor degree

Other: _____

Previous Training: What type of farm management training or education have you participated in?

_____ College Course

_____ Extension workshops/trainings

_____ Continuing education (ASFMRA classes)

Other: _____

What would you consider the core concepts or topics that would need to be covered in farm management training or classes?

What are the skills needed to be a professional farm managers?

What topics or concepts (outside of core topics mentioned in E) do you see coming in the future that need to be included in farm management training or classes?

Appendix 2. Survey Theme Responses

Table A1. Responses to “What would you consider the core concepts or topics that would need to be covered in farm management training or classes?”			
Theme	Frequency	Percent	Response Examples
financial analysis	55	35	<p>“financial analysis/Investment analysis”</p> <p>“Capital improvement-analysis, design, implementation”</p> <p>“Capital project analysis- grain bins, tile, land levelling”</p> <p>“Enterprise analysis, spreadsheet utilization”</p> <p>“Accounting 2)financial modeling,3)investments analysis 4) enterprise budgeting 5) balance sheets 6) capital improvement 7) investment analysis”</p>
communication	26	16	<p>“communication for different ages”</p> <p>“negotiations”</p> <p>“report requirements, communication skills”</p> <p>“how to develop from new client who doesn’t have info regarding their farm and how to get it”</p>
planning or marketing or general economics	25	16	<p>“History-when we have downturns in farming; What causes the downturn? What can we learn from the past? How can we apply it to current conditions?”</p> <p>“Basic marketing/hedging”</p> <p>“Risk Management”</p>
agronomic	12	8	<p>“soil type”</p> <p>“agronomic”</p> <p>“crop project analysis”</p> <p>“general production”</p>
legal issues	11	7	<p>“understanding ownership structures”</p> <p>“Legal Entities (LLC, Partnerships, Corps, Etc.)”</p> <p>“Legal Contracts- leases, construction, management agreements”</p>
leases	9	6	<p>“leases”</p> <p>“absentee landowner”</p> <p>“Lease negotiation/Lease types”</p>
taxes	6	4	<p>“Income taxes”</p> <p>“Tax law”</p>
knowledge about government programs	5	3	<p>“USDA communication”</p> <p>“Conservation and USDA programs (CRP, ARC, PLC, CSP etc)”</p> <p>“USDA-contact analysis of these programs”</p> <p>“Govt programs (community, insurance, conservations”</p>
others	10	6	<p>“Understand that Farm Manager represent the Landowner & gear some of the coursework in that direction”</p> <p>“Internship program to learn & get exposure to “real world” application of skills learned in school program”</p> <p>“insurance-crop, property, liability”</p> <p>“Technological Advancements”</p> <p>“Professionalism”</p>

Table A2. Responses to “What are the skills needed to be a professional farm manager?”

Themes	Frequency	Percent	Response examples
communication	58	37	“Relationship Management” “Adaptability to working, communicating with various personalities” “Client goals”
analytical skills	33	21	“financial skills” “Cash flow analysis” “budgeting”
understanding of laws or legal issues related to agricultural or farm management	14	9	“tax law” “environmental law controversies” “farm business structure, and tax & liability implications”
time management	14	9	“Time management & setting priorities” “organizational skills- time management” “flexibility in day-to-day tasks- wear multiple hats”
farm & ranch management decisions	14	9	“building a short-term & long-term farm/business plan” “Crop Specific Exposure (relative to area)” “understanding of Ag drainage & building”
problem solving	8	5	“crisis management” “dealing with difficult clients (planning)” “critical thinking”
technology	6	4	“drone skills” “technology adaptation” “IT skills”
others	9	6	“self starter” “life long learner-keeping up with industry” “well rounded in agriculture”

Table A3. Responses to “What topics or concepts (outside of core topics mentioned in E) do you see coming in the future that need to be included in farm management training or classes?”

Themes	Frequency	Percent	Response examples
technology applications	15	19	“How to integrate technology into Farm management’s core responsibilities” “Drone usage” “use of technology to monitor farm activities”
general agricultural knowledge	11	14	“Practical knowledge and use of all the above skills (putting all the pieces together and using it to analyze and make decisions)” “seed genetics” “All aspects of precision agriculture”
policy changes	9	12	“Environmental Impacts (Carbon credits)” “EPA Issues” “policies, law”
regenerative agriculture	8	10	“use of regenerative cropping systems” “regenerative Agriculture” “Conservation/Sustainability”
Insurance and financial skills	8	10	“Understanding of Financial Markets” “Financial focus on investment strategies” “Crop Insurance”
communication skills	8	10	“soft skills/communication” “negotiations” “conflict resolutions”
land related issues	4	5	“farm lease alternatives- flex, custom, net share, cash rent” “land ownership trends”
generational dynamics	4	5	“solid grasp of generational dynamics” “demographics- how rural America is changing (i.e. Farm size, etc.)” “succession strategy”
others	11	14	“3) Career moves 4) impact of patience 5) Farm Management is long term not a ‘step’ in a career” “Consumer Preferences” “ESG”