

Commentary

Beyond Business as Usual: Rethinking Agribusiness Education for Changing Students and Work

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Abstract

This commentary introduces the special issue, “Designing Agribusiness Education for Changing Student Demographics and Employer Needs.” It synthesizes the special issue’s contributions around the linked challenges of changing student backgrounds, evolving employer expectations, disciplinary identity, curriculum design, and technological change. Rather than offering a single model for agribusiness education, the commentary frames the special issue as an invitation for departments to evaluate how they recruit students, define core competencies, integrate soft and technical skills, and prepare graduates for a changing food and agricultural economy.

1 Introduction

This special issue advances discussion on how agribusiness programs can refine curricula, pedagogy, and recruitment amid unprecedented technological and demographic change. Rapid advances in artificial intelligence (AI) and data generation have also reshaped how agricultural supply chains operate. Employers across the agrifood value chains now demand a different skill set than graduates a decade ago were trained to provide. Meanwhile, farm consolidation, movement away from farming communities, and a declining college-age population mean that institutions of higher education are seeing the arrival of fewer students, a smaller percentage of whom have farm and ranch backgrounds. These pressures place agribusiness and agricultural economics departments in a difficult position: They must broaden the appeal of their curriculum without sacrificing core competencies while building the new skills that industry demands. Programs that succeed will empower the next generation of problem solvers to address increasingly complex challenges along the food value chain. Those that fail to adapt risk declining enrollment and weaker graduate placement.

This special issue presents eight papers examining how agribusiness programs can adapt. Two subthemes emerge. The first centers on the changing student: Programs must rethink both how they recruit and how they structure curriculum to prepare a generation of workers who look meaningfully different from earlier cohorts. The second centers on the changing employer. Industry transformation has expanded the skill set that employers expect, raising questions about the appropriate scale and scope of agribusiness programs. That is, whether curricula should remain anchored at the farm gate or extend into processing and downstream segments, as well as how far the discipline’s toolkit should stretch to incorporate programming, writing, generative AI, and related competencies. Rather than recounting each article, we offer a synthesis and a series of questions the field may need to address. The contributions should interest anyone educating or hiring in the agrifood supply chain, particularly those who are involved with recruiting and curriculum development in agribusiness and agricultural economics education.

2 Changing Times

Our world is changing, and agribusiness is changing with it. Akridge et al. (2026) make that point best in reviewing the factors that motivated changes to their text. The academy must change too. Loy et al. (2026) focus on pedagogical adjustments to course instruction, while Parcell (2026) takes a broader view of curriculum design. Together, these articles argue that programs should emphasize strategic thinking and technology-enabled approaches to rising issues such as global value chain management. How are programs monitoring and adjusting to these changes, and what systems are we building to keep a clear focus on future demands?

The consumers of our education are changing too. Agribusiness traditionally drew students from farm backgrounds, from fifth-generation producers to those exposed to agriculture through FFA projects. Increasingly, students come from urban populations (Akridge et al. 2026; Ratliff et al. 2026), meaning that the collective understanding of agriculture is lower, and absent for some entirely. Huang and Maples (2026) make a case for recruiting more rural students, which might improve peer teaching from those who understand agriculture firsthand to those new to the field. If we do not balance this knowledge base, how does that affect what or how we teach?

The race for students is not just rural versus urban; students have choices among majors. Karwowski and Shirley (2026), Asci et al. (2026), and Ratliff et al. (2026) all point to clear career outcomes, industry relevance, and experiential learning as key differentiators. If agribusiness programs are simply rebranded business programs, that differentiation may not be compelling, especially since a similar business degree opens employment both inside and outside agriculture. Further competition from programs like animal science departments offering business options is also intensifying. A name change without curriculum alignment to industry and student needs is insufficient. What can agribusiness programs claim as their unique value proposition: industry-driven curriculum (Odiase et al. 2026) or broader thinking (Parcell 2026)?

As programs work to recruit, retain, and educate students, we cannot lose sight of what makes an agribusiness or agricultural economics degree valuable. The proper response is neither to add new topics whenever employers need change nor to preserve the status quo. Programs must develop curricula that meet evolving industry needs while adhering to the frameworks for analytical thinking central to the discipline and to the value of higher education. Several articles engage this tension, speaking to a longstanding debate: How do we define our discipline as a profession? While they do not resolve that question, they encourage departments to more deliberately evaluate their curriculum, graduate skillsets, and the scaffolding students encounter from their first day on campus through entry into the workforce.

3 A Path Forward

A related question is whose needs, and whose definition of value, should guide curriculum design. Agribusiness education serves students seeking a grounded foundation in agriculture, business, economics, and critical thinking. It also serves employers, who judge programs partly by whether graduates contribute meaningfully in the workplace. These purposes need not conflict, but they create tradeoffs. Curricula guided too narrowly by immediate employer demands risk losing the disciplinary foundations that give the degree its long-term value; curricula insulated from industry change risk preparing students for a labor market that no longer exists. Departments must decide not only what to add but what to retain, responding to changing student interests, industry expectations, and technological demands.

Several tensions emerge across the articles. One concerns the boundary of agribusiness education itself: Should programs maintain a strong emphasis on production agriculture, or widen their focus to adjacent industries across the agrifood value chain? And is production agriculture knowledge helpful along the value chain roles (e.g., the value of understanding soybean crush for a broker or procurement

officer). Related is the relationship between technical depth and systems thinking and which foundational skills and forms of agricultural knowledge remain essential. A second concerns growing expectations that graduates bring both soft skills and technical fluency, including communication, teamwork, software, data tools, and generative AI. A third is the constraint of limited credit hours, faculty resources, and student demand for faster pathways to graduation.

The articles offer different perspectives but generally do not argue for abandoning an agricultural identity. Rather, they suggest that programs may need to define that identity more carefully across the agrifood value chain. Ratliff et al. (2026) and Asci et al. (2026) point to curriculum innovations that may broaden student appeal while aligning more closely with food-system and industry needs. Akridge et al. (2026), through the evolution of a widely used agribusiness textbook, show how the field has shifted in response to changes in industry structure, student backgrounds, and employer expectations, with some traditional technical topics giving way to greater emphasis on strategic management, personal skills, and broader decision-making frameworks. The question is not whether these frameworks are valuable, but what happens when the technical and agricultural foundations that support them become less visible. That shift raises an important question: What is lost when agricultural foundations and technical depth are reduced? Skills such as budgeting, recordkeeping, break-even analysis, and production agriculture knowledge may appear narrower than systems thinking or strategic management, but they may provide the foundation that allows students to understand larger-scale problems. Can students understand complex systems if they do not understand the operating units within them?

A second tension concerns developing professional and interpersonal skills alongside technical fluency. Employers continue to value communication, teamwork, and adaptability while expecting graduates to be comfortable with software, data tools, and, increasingly, generative AI. Odiase et al. (2026) and Asci et al. (2026) both note the importance of communication and workplace readiness from student and industry perspectives. The challenge is not whether to teach these skills, but how to teach them in ways that are intentional, assessable, and connected to disciplinary content. Generative AI makes this especially visible. Used well, AI may help students develop stronger analysis and decision-making skills. On the other hand, used poorly, AI may allow cognitive offloading, bypassing the very learning activities meant to build communication, teamwork, and adaptability. These skills may be most effective when embedded in applied projects, internships, and team-based exercises rather than treated as separate curricular additions.

A third tension is resource constraints. Departments are asked to prepare students for a broader, more complex set of career demands while faculty capacity, funding, and contact hours remain limited, and students demand more efficient degree pathways. Under these conditions, curriculum design becomes an exercise in prioritization. What should every agribusiness graduate know? Which skills can be embedded across existing courses, and which competencies are better developed through electives, certificates, internships, or industry partnerships? As higher education faces pressure to demonstrate a degree's value, programs must explain not only the immediate workplace skills students gain, but also the less measurable ones such as analysis, judgment, and critical thinking. The articles do not provide a single answer, but they push departments to define their curriculum, culture, and niche with greater intentionality.

4 Conclusion

The articles in this special issue do not provide a single prescription or path for curriculum reform. Instead, they reveal tensions that departments will need to navigate deliberately. Programs must broaden their appeal to students with more varied backgrounds while preserving the agricultural and economic foundations that distinguish the degree. They must respond to employer demand for communication, teamwork, and workplace readiness while preparing students for a more data-intensive,

technology-enabled industry. They must expose students to larger food-system and value-chain problems without losing the firm, farm, and market-level mechanics that make those systems understandable.

The growing expectation that graduates possess both soft skills and technological fluency illustrates the challenge: Teaching more of one can displace time spent on another, unless courses are designed to build multiple competencies at once. Generative AI complicates this further, since it can either substitute for student learning or support deeper engagement, depending on how assignments are designed and how students engage with AI. Agribusiness programs cannot simply add topics to crowded curricula. They must make intentional choices about what belongs in the core, what can be embedded across existing courses, and what should be developed through experiential learning, certificates, internships, or industry partnerships. In this sense, the special issue is less a conclusion than a starting point for continued discussion about how agribusiness education can adapt to changing students, changing employers, and a changing food value chain.

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References

- Akridge, J., F.L. Barnard, B.E. Brewer, W.D. Downey, J.C. Foltz, T. Malone, et al. 2025. "Seven Editions of Pedagogical Innovation: Insights for Developing an Agribusiness Management Curriculum for the Twenty-First Century." *Applied Economics Education and Extension*, Advance Access. <https://doi.org/10.71162/aetr.268356>.
- Asci, S., T. Lone, and P. Xu. 2026. "Juggling Students and Industry Needs: Redesigning an Academic Agribusiness Program." *Applied Economics Education and Extension*, Advance Access. <https://doi.org/10.71162/aetr.881295>.
- Huang, K.-M., and J.G. Maples. 2026. "Avoid Falling from the Enrollment Cliff: Finding Treasures from Rural Areas May Be a Solution for Some Universities." *Applied Economics Education and Extension*, Advance Access. <https://doi.org/10.71162/aeer.888181>.
- Karwowski, N., and B. Shirley. 2025. "Designing a Farm and Ranch Management Plan: A Teaching Template." *Applied Economics Education and Extension*, Advance Access. <https://doi.org/10.71162/aetr.854940>.
- Loy, R., L.L. Britton, and F.B. Norwood. 2026. "Technical Skills and Their Roles in Agribusiness Supply Chain Management Education." *Applied Economics Education and Extension*, Advance Access. <https://doi.org/10.71162/aeer.986374>.
- Odiase, I.R., A.J. Johnson, W.S. Downey, and R.B. Holcomb. 2026. "Skills and Capabilities Needed for Agribusiness Graduates." *Applied Economics Education and Extension*, Advance Access. <https://doi.org/10.71162/aeer.996020>.
- Parcell, J. 2026. "Evolving Curriculum to Prepare Students to Solve Problems That Don't Yet Exist: The Application of Horizon-Scanning." *Applied Economics Education and Extension*, Advance Access. <https://doi.org/10.71162/aeer.551640>.
- Ratliff, E., S. Howry, K.J. Moore, J. Penn, M. Ibrahim, and K. Kiesel. 2026. "Re-Engaging Traditional Students and Attracting New Talent to Agricultural and Applied Economics Curricula and Agribusiness Careers." *Applied Economics Education and Extension*, Advance Access. <https://doi.org/10.71162/aetr.465785>.

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