

## **Hiring and Retention Challenges in Agriculture**

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**Introduction and Literature Review.** Agricultural employers continue to encounter significant difficulties recruiting and retaining workers, contributing to workforce instability that affects productivity, operational efficiency, and the long-term viability of farms and agribusinesses (Cloutier et al., 2015; Rivera & Alex, 2008). Examining agricultural labor issues alongside HR research provides a comprehensive perspective on the factors shaping workforce stability in the agricultural sector. Wage competition remains a major driver of recruitment and retention challenges, as many farms operate with narrow profit margins and cannot match wages and benefits offered by nonagricultural sectors (Christiaensen et al., 2021; Maró et al., 2025). Seasonal employment patterns further reduce job stability and career pathways, encouraging workers to move between agricultural and nonagricultural employment (Luo & Escalante, 2017; Nettle et al., 2025). Physically demanding and hazardous working conditions, along with negative public perceptions of agricultural work, also discourage long-term employment (CDC, n.d.; Nettle et al., 2025). Beyond structural constraints, workplace management practices significantly influence retention. Supportive supervision, clear expectations, consistent policies, recognition, and respectful treatment improve employee satisfaction and organizational commitment (Azeez, 2017; Moore et al., 2020; Singh, 2019). Training and workforce development initiatives further strengthen retention by increasing employee skills, productivity, and advancement opportunities (Cloutier et al., 2015; Rivera & Alex, 2008; USDA NIFA, n.d.). Overall, improving agricultural workforce stability requires both structural labor-market solutions and organizational strategies that enhance HR management capacity and workforce development.

**Purpose.** The purpose of the needs assessment study was to explore farm and agribusiness owners' perspectives on hiring and retention challenges within the agricultural sector.

**Method.** We used an online survey method to examine hiring and retention challenges among farm and agribusiness owners in Pennsylvania. We collected data through using Extension listservs and agricultural organization mailing lists, utilizing the Dillman et al. (2014) approach. A total of 283 individuals completed the survey. We retained 101 responses that met completeness criteria for quantitative analysis. The questionnaire included demographic items, closed-ended questions on recruitment and retention practices, and one open-ended question on hiring and retention challenges. Among the respondents, 52 provided usable open-ended responses, which formed the qualitative dataset.

Qualitative data were analyzed using applied thematic analysis with an inductive coding approach. Open-ended responses allow researchers to capture in-depth perspectives on complex or sensitive issues that may not be fully addressed through closed-ended items (Borg & Zuell, 2012; Zull, 2016). This approach enabled farm and agribusiness owners to describe hiring and retention challenges in their own words, providing richer insight into workforce issues. Responses were coded manually and organized in Microsoft Excel for analysis. The coding framework was reviewed and validated by the research team to ensure analytic rigor. The Institutional Review Board approved the study.

**Findings.** Most respondents were directly involved in hiring and retention ( $n = 70$ , 69.3%), with the majority identifying as farm owners ( $n = 60$ , 63.2%). Recruitment relied primarily on word of mouth ( $n = 53$ , 66.3%), while key hiring challenges included difficulty finding qualified candidates ( $n = 42$ , 53.2%) and limited local applicants ( $n = 38$ , 48.1%). Employers reported

using retention strategies, such as creating positive work environments (n = 51, 65.4%) and offering competitive wages (n = 38, 48.7%), although their confidence in these strategies varied. On-the-job training was identified as the primary method of workforce preparation (n = 58, 81.7%). Key hiring challenges included difficulty finding qualified and local applicants and high labor costs, while retention strategies most often focused on creating positive work environments and offering competitive wages. Respondents strongly preferred practical training approaches, particularly on-the-job training, and qualitative analysis revealed six interconnected themes influencing hiring and retention, including labor supply constraints, economic viability, job demands, workforce readiness, workplace culture, and structural and regulatory barriers.

**Conclusions.** Overall, the findings highlight the complex and interconnected nature of the hiring and retention challenges faced by agricultural employers, aligning with previous findings (Black & Arruda, 2021; Cloutier et al., 2015; Rivera & Alex, 2008; Malanski et al., 2021; Maró et al., 2025; Nye, 2021; Ryan, 2023). The results of our study showed that employers relied heavily on informal recruitment methods and consistently reported difficulty finding qualified and local applicants, alongside pressures related to labor costs, turnover, and seasonality. Employers emphasized workplace-based retention strategies, particularly creating positive work environments, offering competitive wages, and providing training opportunities, yet confidence in workforce stability varied across respondents. The identification of six interrelated themes underscores that a single factor does not drive hiring and retention challenges in agriculture; instead, they reflect overlapping economic, structural, cultural, and regulatory conditions. Although individual farms have limited control over broader labor market dynamics, employer practices, workforce development initiatives, Extension education, and supportive policy frameworks can meaningfully influence retention outcomes. This study was limited to one state and cannot be generalized.

**Recommendations for Practice.** Agricultural employers and managers may improve retention and productivity by clearly communicating total compensation, providing realistic job previews, strengthening onboarding and supervision practices, and investing in skills-based training. Extension and workforce development programs should prioritize practical human resource training, short-term skills-focused education aligned with employer needs, youth engagement initiatives, and peer learning opportunities. At the policy level, stakeholders may reduce systemic barriers by strengthening economic support for small and mid-sized farms, simplifying labor regulations, and investing in rural workforce infrastructure.

**Future Research.** Future research should expand on this work by incorporating the perspectives of agricultural employees alongside those of employers to provide a more comprehensive understanding of workforce dynamics in agriculture. Studies using larger, more geographically diverse samples are needed to examine how hiring and retention challenges vary across regions, commodities, and farm sizes. Longitudinal research designs would allow scholars to assess how workforce challenges evolve and to evaluate the effectiveness of specific workforce development, Extension, and management interventions. Additional research should examine the impact of employer practices, such as onboarding processes, supervision styles, communication strategies, and training investment, on employee retention, job satisfaction, and productivity.

## References

- Azeez, S. (2017). Human Resource Management Practices and employee retention: A review of literature. *Journal of Economics, Management and Trade*, 18(2), 1–10.  
<https://doi.org/10.9734/jemt/2017/32997>
- Centers for Disease Control and Prevention (CDC). (2024). *Agriculture Worker Safety and Health*. Centers for Disease Control and Prevention.  
[https://www.cdc.gov/niosh/agriculture/about/?CDC\\_AAref\\_Val=https%3A%2F%2Fwww.cdc.gov%2Fniosh%2Ftopics%2Fagriculture](https://www.cdc.gov/niosh/agriculture/about/?CDC_AAref_Val=https%3A%2F%2Fwww.cdc.gov%2Fniosh%2Ftopics%2Fagriculture)
- Christiansen, L., Rutledge, Z., & Taylor, J. E. (2020). *The Future of Work in Agriculture: Some Reflections*. <https://doi.org/10.1596/1813-9450-9193>
- Cloutier, O., Felusiak, L., Hill, C., & Pemberton-Jones, E. J. (2015). The importance of developing strategies for employee retention. *Journal of Leadership, Accountability, and Ethics*, 12(2).
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method* (4th ed.). Wiley.
- Luo, T., & Escalante, C. L. (2017). US farm workers: What drives their job retention and work time allocation decisions? *The Economic and Labour Relations Review*, 28(2), 270–293.  
<https://doi.org/10.1177/1035304617703933>
- Maró, Z. M., Nagy, J., Molnár, E. M., & Mizik, T. (2025). Challenges and potential solutions to employment issues in the Agri-food sector of developed countries - A systematic literature review. *Sustainable Futures*, 10, 100895.  
<https://doi.org/10.1016/j.sft.2025.100895>
- Moore, S. J., Durst, P. T., Ritter, C., Nobrega, D., & Barkema, H. W. (2020). Effects of employer management on employee recruitment, satisfaction, engagement, and retention on large US dairy farms. *Journal of Dairy Science*, 103(9), 8482–8493.  
<https://doi.org/10.3168/jds.2019-18025>
- National Institute of Food and Agriculture (NIFA). (n.d.). *Workforce development*.  
<https://www.nifa.usda.gov/topics/workforce-development>
- Nettle, R., Vikas, A., Lin, P., & Santhanam-Martin, M. (2025). Review: Attracting and retaining a farm workforce for the Pork Industry. *Animal*, 101670.  
<https://doi.org/10.1016/j.animal.2025.101670>
- Nye, C. (2021). The farm worker and the ‘drift to the land’. Roots, routes, opportunities, and constraints to career pathways in farming. *Journal of Rural Studies* 83, 201–214.  
<https://doi.org/10.1016/j.jrurstud.2020.11.004>
- Rivera, W. M., & Alex, G. E. (2008). Human resource development for modernizing the agricultural workforce. *Human Resource Development Review*, 7(4), 374–386.  
<https://doi.org/10.1177/1534484308324633>
- Ryan, M. (2023). “Labour and skills shortages in the agro-food sector”, *OECD Food, Agriculture and Fisheries Papers*, No. 189, OECD Publishing, Paris, <https://doi.org/10.1787/ed758aab-en>.
- Singh, D. (2019). A literature review on employee retention with a focus on recent trends. *International Journal of Scientific Research in Science, Engineering and Technology*, 425–431. <https://doi.org/10.32628/ijrsrst195463>