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Societies

# Farmers are already experimenting. Are researchers ready to join them?

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*Using a drone to scout a wheat crop can efficiently pinpoint trouble areas across large acreage and is an example of utilizing precision agriculture technologies. Photo courtesy of Brad Bernhard.*

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Precision agriculture technologies help farmers collect and use detailed information about their fields, transforming how they manage their operations. These technologies make it possible to identify optimal site-specific practices, creating opportunities to improve both farm profitability and environmental stewardship.

While these technologies offer many advantages, less is known about whether farmers want to use them for on-farm experiments or work with researchers on those efforts. Better understanding farmers' interests and motivations can help build stronger partnerships and encourage more practical, farmer-driven research.

This study surveyed Midwestern farmers about their use of precision agriculture tools, their experience conducting on-farm experiments, and their willingness to collaborate with researchers. Most respondents said that these technologies help them make better management decisions, and more than 75% already conduct experiments on their farms. Nearly all respondents who experiment use precision agriculture tools, and almost half expressed interest in working with researchers.



*Word cloud showing common topics discussed during farmer interviews that guided the design of the survey used in this study. Figure courtesy of Reagen F. Tibbs, University of Illinois Extension.*

These findings suggest significant opportunities to build stronger connections between farmers and researchers, which could speed up the development of practical solutions to the economic and environmental challenges facing agriculture.

### **Dig deeper**

Tibbs, R. G., Heller, N. J., Bullock, D. S., & Boerngen, M. A. (2026). Midwestern farmers' willingness to engage with precision agriculture technologies and on-farm precision experimentation. *Agronomy Journal*, 118, e70377.

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