

## **Grant E. Gardner, Ph.D.**

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### **Experience:**

**Assistant Extension Professor, University of Kentucky**, Department of Agricultural Economics 2023-Present  
DOE: 85% Extension, 10% Teaching, 5% Service  
**Ph.D. Research Assistant, Kansas State University**, Department of Agricultural Economics 2019-2022  
**M.S. Research Assistant, University of Nebraska Lincoln**, Department of Agricultural Economics 2017-2019  
**Undergraduate Research Assistant, Purdue University**, Department of Agricultural Economics 2016-2017

### **Education:**

**Ph.D., Kansas State University**, Manhattan, Kansas December 2022  
Doctor of Philosophy in Agricultural Economics  
Dissertation: Data Not Available? Survey Applications to Carbon Sequestration and Irrigation Water Quality  
**M.S., University of Nebraska**, Lincoln, Nebraska August 2019  
Master of Science in Agricultural Economics  
Thesis: An Economic Application of Site-Specific Input Application  
**B.S., Purdue University**, West Lafayette, Indiana May 2017  
Bachelor of Science in Agribusiness Management, Honors Program, Minor in Agronomy

### **Peer-Reviewed Publications:**

**Gardner, G.** Sampson, G. (2024) “Groundwater Quality vs. Groundwater Quantity. Combining Information on Irrigator Concerns with Past Water Use and Cropping Behavior” *Water Resources and Economics*. June 2024.  
<https://www.sciencedirect.com/science/article/pii/S2212428424000100>.

**Gardner, G.** Sampson, G. (2022) “Land Value Impacts of Ethanol Market Expansion Differ by Irrigation Status” *Journal of Agricultural and Resource Economics*. September 2022.  
<https://jareonline.org/articles/land-value-impacts-of-ethanol-market-expansion-by-irrigation-status/>.

**Gardner, G.** Sampson, G. Presley, D. (2021) “Irrigator Perceptions and The Value of Groundwater Quality In The High Plains Aquifer” *Journal of Soil and Water Conservation*. May 2021.  
<https://www.jswconline.org/content/early/2021/05/21/jswc.2021.00118/tab-article-info>.

**Gardner, G.** Mieno, T. Bullock, D. (2021) “An Economic Evaluation of Site-Specific Input Application Rx Maps: Evaluation Framework and Case Study” *Precision Agriculture*. March 2021.  
<https://link.springer.com/article/10.1007/s11119-021-09785-z>.

### **Peer-Reviewed USDA Publications**

Hronzencik, R.A. **Gardner, G.** Potter, N. Wallander, S. (2023) “Survey of Irrigation Organizations: Groundwater Management” *USDA ERS. Economic Brief Number 34*. April 2023.  
<https://www.ers.usda.gov/publications/pub-details/?pubid=102949>

### **Working Papers**

**Gardner, G.,** Sampson, G., Zhou, S., Tonsor, G. “Cover Crop and No-Till Adoption: What Affects Willingness to Accept of Cover Crop and No-Till Contracts?”

Tack, J., K. Ala-Kokko, **G. Gardner**, V. Breneman, and S. Arita. “Examination of the role of spatial correlation in weather shocks as it relates to agricultural trade and climate change.” (Submitted for Publication)

### **Numbered Extension Publications:**

**Gardner, G.,** Shockley, J., Halich, G. “Economics of Winter Wheat Production and Marketing in Kentucky.” *A Comprehensive Guide to Wheat Management in Kentucky*. (Working)

## **Peer-Approved Extension Publications:**

### **\* indicates Graduate Student**

- Gardner, G.**, Sampson, G. Groundwater quality vs groundwater quantity. Combining information on irrigator concerns with past water use and cropping behavior.” Groundwater Forum. July 25, 2024
- \*Serrano, E. **Gardner, G.**, Biram, H. “Using Risk Preference to Inform Crop Insurance Decision Making” Southern Ag Today. July 17, 2024.
- Gardner, G.** “Ag Export Percentages: A Focus on Corn, Soybeans, and Wheat” June 10, 2024.
- Shockley, J., **Gardner, G.** “Management and Marketing Implications of Deforestation-Free Soybeans in the Southern Region” Southern Ag Today. May 22, 2024.
- Gardner G.** “A Way-Too-Early Soybean-to-Corn Price Ratio Analysis: Price Implications and Planting Decisions” Southern Ag Today. January 29, 2024.
- Maples, W., **Gardner, G.** “Using Historical Price Movements to Inform Marketing Decisions” Southern Ag Today. December 18, 2023.
- Gardner, G.**, Maples, W. “River Levels and Off-Farm Storage Disbursement” Southern Ag Today. October 23, 2023.
- Gardner, G.**, Biram, H., and Mitchell, J. “Low River Levels, Barge Freight, and Widening Basis” Southern Ag Today. September 25, 2023.
- Biram, H., **Gardner, G.** “Implications of the Black Sea Grain Deal Cancellation” Southern Ag Today. July 24, 2023.
- Gardner, G.**, Biram, H. “USDA Acreage Report Results: Price and Crop Insurance Impacts” Southern Ag Today. July 3, 2023.
- Gardner, G.** “Interest Rates and Grain Storage” Southern Ag Today. June 26, 2023.
- Gardner, G.**, Biram, H. “Rethinking Fertilizer Prices” Southern Ag Today. April 10, 2023.
- Gardner, G.**, Smith, A. “Sensitivity of USDA’s Agricultural Outlook Forum Projections to Changes in Soybean Crush Demand” Southern Ag Today. March 27, 2023.
- Gardner, G.**, Smith, A. “Sensitivity of USDA’s Agricultural Outlook Forum Projections to Changes in Corn Exports” Southern Ag Today. March 20, 2023.
- Smith., A. **Gardner, G.** “February USDA Agricultural Outlook Forum Projections Compared to USDA Final Estimates” Southern Ag Today. March 6, 2023.

## **Extension Newsletters and Bulletins:**

- Gardner, G.** “Commodity Price Drivers: Seasonality” U.K. Economic and Policy Update. June 2024.
- Shockley, J., **Gardner, G.** “ADM Requirements to Comply with New EU Regulation Impacting Kentucky Soybean Producers” U.K. Economic and Policy Update. May 2024.
- Gardner, G.** “Drivers of Commodity Prices: Exports” U.K. Economic and Policy Update. April 2024.
- Gardner, G.** “Old Crop Balance Sheets, and New Crop Projections: What would it take to get \$6.00 Corn and \$14.00 Soybeans?” U.K. Economic and Policy Update. February 2024
- Snell, W., Burdine, K., Shockley, J., Stowe, J., **Gardner, G.**, Woods, T. Pierce, J., Stringer, J. “Ag Economic Situation and Outlook” December 2023.
- Gardner G.** “2023 Revenue Insurance Payment Scenarios for Corn and Soybeans.” U.K. Corn and Soybean Newsletter and Kentucky Corn Growers Association Newsletter. November 2023.
- Gardner, G.** “Mississippi River Level Impacts on Basis: 2022 Vs. 2023” U.K. Economic and Policy Update. October 2023.
- Gardner, G.**, Biram, H. “River Levels, Barge Freight, and Widening Basis” U.K. Corn and Soybean Newsletter. September 2023.
- Gardner, G.** “Interest Rates and Grain Storage” U.K. Economic and Policy Update. August 2023.
- Gardner, G.**, Biram, H. “USDA Acreage Report Results: Price and Crop Insurance Impacts” U.K. Corn and Soybean Newsletter. July 2023.
- Gardner, G.** “2023 May WASDE Update: Yield is King” U.K. Economic and Policy Update. May 2023.
- Gardner, G.** “Prospective Plantings and Historical Accuracy” U.K. Economic and Policy Update. April 2023.
- Gardner, G.** “What Would Discontinuation of the Black Sea Grain Deal and Poor Wheat Conditions Mean for Wheat Price?” U.K. Wheat Newsletter. April 2023.
- Gardner, G.** “Sensitivity of USDA’s 2023 Ag Outlook Forum Projections to Yield” U.K. Corn and Soybean Newsletter. March 2023.
- Mieno, T., **Gardner, G.** “The Economic Evaluation of Input Use Prescription Maps: Are You Paying to Make Less Profit?” Cornhusker Economics. 2019.

## **Extension Programming:**

### Outlook and Management Presentations (2023-24). **45+ County/Field Day Presentations**

Presented a mix of corn, soybeans, and wheat marketing, fertilizer outlook, and farm management decision-making tools including but not limited to crop insurance, farm programs, and marketing plans

### Kentucky Farm Bureau Agricultural Economic Outlook (2023)

Presented on current corn, soybean, and wheat markets with projections and insight for better marketing next year. 300 people were in attendance.

### Agricultural Economics New Agent Training (2023).

Worked with other faculty to conduct a two-day basic economic training for new Agriculture Extension Agents.

Presented on supply/demand and marketing basics.

### Ohio State Commodity Marketing Workshop (2024).

Collaborated with extension professors to put on a two-day workshop for young farmers on commodity marketing and risk management in Columbus, Ohio.

### Corteva Crop Protection Excel Trainings (2024)

Gave a series of classes on Microsoft Excel use for the Indiana and Eastern Illinois Crop Protection Team

## **Extension Programming/Tools:**

Gardner, G., Burdine, K., Burr, E., Burr, K. University of Kentucky Commodity Marketing Calander 2024.

## **Other Media:**

Marketing Update. (2023). Three Radio Appearances.

Marketing Update. (2023). Dirt to Dollars Podcast.

Market Thoughts. (2023-24). Kentucky Ag Matters Podcast. **Two Appearances.**

Popular Press Interviews (2023-24) – Six Interviews at five outlets

Quoted in 25+ newspaper articles or magazines (2024)

## **Re-Publications:**

Shockley, J., **Gardner, G.** EU to Require Soybeans to Be Deforestation Free. May 2024.

<https://www.farmprogress.com/soybean/eu-to-require-soybeans-to-be-deforestation-free>

**Gardner, G.**, Maples, W. River Levels and Off-Farm Storage Disbursement. November 2023.

<https://www.farmprogress.com/corn/off-farm-storage-use-affected-by-low-river-levels>

**Gardner, G.**, Biram, H., and Mitchell, J. “Low River Levels, Barge Freight, and Widening Basis. October 2023

<https://www.farmprogress.com/crops/low-river-levels-barge-freight-and-widening-basis>

Biram, H., **Gardner G.** Implications of the Black Sea Grain Deal Cancellation. August 2023.

<https://www.farmprogress.com/crops/implications-of-the-black-sea-grain-deal-cancellation>

**Gardner, G.**, Biram, H. USDA Acreage Report Results. July 2023.

<https://www.farmprogress.com/crops/usda-acreage-report-results>

**Gardner, G.**, Biram, H. Rethinking Fertilizer Prices. Farm Progress. April 2023.

<https://www.farmprogress.com/crops/rethinking-fertilizer-prices>

Smith., A., **Gardner, G.** USDA Ag Outlook Favors Lower Prices. March 2023.

<https://www.farmprogress.com/grains/usda-ag-outlook-favors-lower-prices>

## **Detailed Description of Grants Funded: \$12,000 Total**

Title of Project: Kentucky Basis Prediction Tool

Source of Support: Kentucky Corn Growers Association

Amount Awarded: \$10,000

Title of Project: Graduate Student Travel Funds

Source of Support: University of Kentucky

Amount Awarded: \$2,000

## Detailed Description of Grants Unfunded: \$10,000 Total

Title of Project: Crop Insurance Decision Tool  
Source of Support: Kentucky Small Grains Board  
Amount Requested: \$10,000

## Graduate Student Mentorship

**Advisor**, Enil Serrano, M.S., Expected Graduation May 2025  
**Co-Advisor**, Caleb Brown, M.S., Expected Graduation May 2025  
**Committee Member**, Ryan Murphy, M.S., Expected Graduation December 2024  
**Committee Member**, Jonathan Shepherd, Ph.D., Expected Graduation May 2025

## Teaching Experience:

Grain Marketing, University of Kentucky	2023-Present
Price Analysis and Forecasting, KSU, Guest Lecture: Hedonic Pricing Models	2022
Decision Tools for Agricultural Economics and Agribusiness, KSU, Teacher	2021
Class Adjusted Overall Effectiveness as a Teacher: 4.1/5	
Marketing of Agricultural Commodities, UNL, Fabio Mattos, Teaching Assistant	2019
Introduction to Commodity Marketing, UNL, Fabio Mattos, Teaching Assistant	2018
Linear Programming, Purdue, Craig Dobbins/Juan Sesmero, Teaching Assistant	2015-2017

## Professional and Peer Presentations/Posters:

**Bold indicates presenter / \* indicates Graduate Student**

- Gardner, G.** Observations from the Field. North Central Extension Outlook Annual Meeting. West Lafayette, Indiana. August 14-15, 2024
- \*Serrano, E., Gardner, G., Biram, H.** Crop Insurance Education with the Crop Insurance Decision-Maker. AAEA Extension Competition. Finalist. Agricultural & Applied Economics Association (AAEA) Annual Meeting. New Orleans, Louisiana. July 29-30, 2024.
- Tack, J., K. Ala-Kokko, G. Gardner, V. Breneman, and S. Arita.** Leveraging Spatial Correlations of Weather to Better Understand Supply Chain Resilience. Presentation. Agricultural & Applied Economics Association (AAEA) Annual Meeting. New Orleans, Louisiana. July 29-30, 2024.
- \*Serrano, E., Gardner, G., Biram, H.** What Does a World Without NASS County Estimates Look Like? Poster Session. Southeastern Extension Economics Committee Annual Meeting. June 2024.
- Gardner, G.** Developing a Pre-Harvest Marketing Plan. Presentation. Southeastern Extension Economics Committee Annual Meeting. June 2024.
- Biram, H., B. Mills, G. Gardner, \*E. Serrano, R. Loy, R. Rainey, B. Ahrendsen.** Federal Crop Insurance Decision Aids and Materials for Producers and Extension Faculty. Presentation. Southeastern Extension Economics Committee Annual Meeting. June 2024.
- Biram, H., B. Mills, G. Gardner, \*E. Serrano, R. Loy, R. Rainey, B. Ahrendsen.** Federal Crop Insurance Decision Aids and Materials for Producers and Extension Faculty. Poster Session. Extension Risk Management Education National Conference. Salt Lake City, Utah. April 2024
- Gardner, G.** 2023/24 Corn Outlook. Presentation. Southern Agricultural Economics Association Annual Meeting. Atlanta, Georgia. February 4-5. 2024.
- Gardner, G.** 2023 Corn Outlook. Presentation. Southeastern Economic Outlook Conference. Knoxville, Tennessee. October 2-3, 2023.
- Gardner, G.** 2023 Soft Red Winter Wheat Outlook. Presentation. North Central Extension Outlook Annual Meeting. Kansas City, Missouri. August 14-15, 2023.
- Tack, J., **K. Ala-Kokko, G. Gardner, V. Breneman, and S. Arita.** Examination of the role of spatial correlation in weather shocks as it relates to agricultural trade and climate change. Presentation. Agricultural & Applied Economics Association (AAEA) Annual Meeting. Washington, D.C. July 23-25, 2023.
- Gardner, G., G. Sampson.** Quality vs Quantity: Combining information on irrigator concerns with past water use behaviors. Presentation. Western Agricultural Economics Association Annual Meeting. Whistler, Canada. July 18-19, 2023
- Tack, J., K. Ala-Kokko, G. Gardner, V. Breneman, and S. Arita.** Examination of the Role of Spatial Correlation in Weather Shocks as it Relates to Agricultural Trade and Climate Change. Presentation. International Conference on Agricultural Statistics (ICAS). Washington, D.C. May 2023.

- Gardner, G., G. Sampson.** Does Irrigation Behavior Coordinate with Irrigator Perceptions of Water Quality? Presentation. American Agricultural Economics Association Annual Meeting. Anaheim, California. August 2022
- Gardner, G., G. Sampson.** Carbon Sequestration: Heterogeneity in Willingness to Accept. Presentation. Western Agricultural Economics Association Annual Meeting. Santa Fe, New Mexico. July 2022.
- Gardner, G., G. Sampson.** Irrigator Perceptions and the Value of Groundwater Quality. Poster Session. Kansas State. Research and the State Competition. Manhattan, Kansas. November 2021
- Gardner, G., G. Sampson.** Land Value Impacts of Ethanol Market Expansion Differ by Irrigation Status. Presentation. American Agricultural Economics Association Annual (AAEA) Meeting. Austin, Texas. August 2021.
- Hrozencik, A., **G. Gardner** 2019 Survey of Irrigation Organizations Research Briefing. Presentation. USDA Drought and Water Kansas City, Missouri. August 2021.
- Gardner, G., T. Mieno.** Economic Evaluation of Variable Rate Nitrogen Application. American Agricultural Economics Association Annual Meeting. Presentation. August 2020.
- Gardner, G., S. Downey.** Decision Making on Multigenerational Farms.” Potash i2i Poster Presentation. West Lafayette, Indiana. May 2017

### **Awards:**

Southern Ag Today Viewership Award - Most Viewed Article of the Year 2024

### **Peer-Reviewed Journal Referee:**

Integrated Pest Management 2024-Present

### **Peer-Reviewed Extension Referee:**

Southern Ag Today 2023-Present

University of Kentucky, Cooperative Extension Service 2023-Present

### **Fellowships and Memberships:**

Agricultural Future of America Alliance Member 2017-Present

SAEA Member 2023-Present

IFAMA Member 2017-Present

AAEA Member 2021-Present

WAEA Member 2021-Present

USDA National Needs Fellow 2019-2022

Nolan G. and Jean M. McKenzie Graduate Student Fellowship 2021-2022

Center for Risk Management Fellow, Kansas State University 2019-2021

Timothy R. Donoghue Fellow 2019-2021

### **Leadership/Campus/Community Service:**

**Southeastern Extension Economics Committee** 2024-Present

*Secretary*

**Alpha Gamma Rho Fraternity**

*Chapter Coach*, University of Kentucky 2023-Present

*Advisor*, University of Nebraska-Lincoln, and Kansas State University 2017-2022

**Undergraduate Committee Member**, University of Kentucky 2023-Present

**Kentucky Farm Bureau Grains Advisory Committee**, Ex Officio Member 2023-Present

**4<sup>th</sup> Floor Safety Officer**, University of Kentucky 2024-Present

**Kentucky Farm Bureau Young Farmers**, Fayette County 2023-Present

**Graduate Student Council**, Kansas State University

*Research Forums Co-Chair* 2019-2021

**Agricultural Economics Case Study Club**, Kansas State University

*Secretary* 2019-2020

**Other Professional Work Experience:**

**USDA Economic Research Service, Kansas City, MO**

*Economics Intern*

Summer 2021

**DuPont Pioneer, Champaign, IL**

*Agronomy Sales Intern*

Summer 2017

**Frito Lay, Oak Forest, IL**

*Future Sales Leader*

Summer 2016

**DuPont Pioneer, Champaign, IL**

*Crop Research Intern*

Summer 2015

**Mouzin Brother Farms, Vincennes, IN**

*Farm Hand*

2010-2014

**Gardner Farms, Vincennes, IN**

*Farm Hand*

as Available