

Yuyuan Che

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Professional Experience

Assistant Professor, Department of Agricultural and Applied Economics, **Texas Tech University**, 2023–Present

Postdoctoral Research Scholar, Department of Agricultural and Resource Economics, **North Carolina State University**, 2021–2023

Education

Ph.D. *Agricultural, Food, and Resource Economics* and *Economics* (Dual Major), **Michigan State University**, 2016–2021

M.S. *Computer Technology*, **Peking University**, 2013–2016

B.S. *Mathematics and Applied Mathematics*, **Sun Yat-Sen University**, 2008–2012

Fields of Interest

Production Economics, Risk Management, Behavioral Economics, Applied Econometrics, Environmental Economics

Peer-Reviewed Publications

Che, Y., D.A. Hennessy, and H. Feng. 2025. Seeding Rate Responses to Markets, Resources and Technologies. *Journal of Agricultural and Resource Economics* 50(3): 487–507. <https://doi.org/10.22004/ag.econ.356157>

Zhang, Y., **Y. Che**, R.M. Rejesus, M. Cavigelli, K. White, S. Aglasan, L.G. Knight, C. Dell, D. Hollinger, and E.D. Lane. 2024. Assessing Medium-Term Economic Impacts of Cover Crop Adoption. *Soil Security* 17: 100170. <https://doi.org/10.1016/j.soisec.2024.100170>

Che, Y., H. Feng, and D.A. Hennessy. 2023. Will Adoption Occur if a Practice is Win-Win for Profit and the Environment? An Application to a Rancher's Grazing Practice Choices. *Ecological Economics* 209: 107826. <https://doi.org/10.1016/j.ecolecon.2023.107826>

Che, Y., R.M. Rejesus, M. Cavigelli, K. White, S. Aglasan, L.G. Knight, C. Dell, D. Hollinger, and E.D. Lane. 2023. Long-Term Economic Impacts of No-Till Adoption. *Soil Security* 13: 100103. <https://doi.org/10.1016/j.soisec.2023.100103>

Lu, X., **Y. Che**, R.M. Rejesus, B.K. Goodwin, S.K. Ghosh, and J. Paudel. 2023. Unintended Environmental Benefits of Crop Insurance: Nitrogen and Phosphorus in Water Bodies. *Ecological Economics* 204: 107657. <https://doi.org/10.1016/j.ecolecon.2022.107657>

Park, B., R.M. Rejesus, S. Aglasan, **Y. Che**, S. Hagen, and B. Salas. 2023. Payments from Agricultural Conservation Programs and Cover Crop Adoption. *Applied Economic Perspectives and Policy* 45(2): 984–1007. <https://doi.org/10.1002/aapp.13248>

- Che, Y.**, H. Feng, and D.A. Hennessy. 2022. Assessing Peer Effects and Subsidy Impacts in Conservation Technology Adoption: Application to Grazing Management Choices. *Journal of the Agricultural and Applied Economics Association* 1: 285-303. <https://doi.org/10.1002/jaa2.26>
 (2022 AAEA Institutional, Behavioral, and Experimental Section Best Paper Award)
- Hennessy, D.A., A.J. Lindsey, **Y. Che**, L.E. Lindsey, M.P. Singh, H. Feng, E.M. Hawkins, S.K. Subburayalu, R. Black, and D.S. Ochse. 2022. Characterizing the Decision Process in Setting Corn and Soybean Seeding Rates. *Journal of Extension* 60(1):3. <https://doi.org/10.34068/joe.60.01.03>
- Che, Y.**, H. Feng, and D.A. Hennessy. 2020. Recency Effects and Participation at the Extensive and Intensive Margins in the U.S. Federal Crop Insurance Program. *The Geneva Papers on Risk and Insurance-Issues and Practice* 45(1):52-85. <https://doi.org/10.1057/s41288-019-00147-5>
- Wang, T., H. Jin, U. Kreuter, H. Feng, D.A. Hennessy, R. Teague, and **Y. Che**. 2020. Challenges for Rotational Grazing Practice: Views from Non-adopters across the Great Plains, USA. *Journal of Environmental Management* 256:109941. <https://doi.org/10.1016/j.jenvman.2019.109941>
- Yu, Y., H. Li, **Y. Che**, and Q. Zheng. 2017. The Price Evolution of Wind Turbines in China: A Study Based on the Modified Multi-Factor Learning Curve. *Renewable Energy* 103:522-536. <https://doi.org/10.1016/j.renene.2016.11.056>

Working Papers

(* Indicates a graduate student coauthor)

Che, Y., S. Aglasan, E.K. Burchfield, and R.M. Rejesus. Landscape Complexity Mitigates Weather-Related Crop Insurance Losses and Enhances Climate Resilience

Che, Y., H. Feng, D.A. Hennessy, and C. Lu. Whether and Where Nitrogen Overapplication Occurs in U.S. Maize Production: Profit Benchmarks, Price Responses, and Environmental Trade-offs

Che, Y., S. Aglasan, E.K. Burchfield, and R.M. Rejesus. Crop Insurance Participation and Landscape Complexity

Che, Y., S.K. Ghosh, and R.M. Rejesus. Estimating Stochastic Production Functions with Linear Inequality Constraints

Alcantara*, R., **Y. Che**, C. Wang, and W. Guo. The Impact of Crop Insurance Participation on Water Use Under Extreme Heat: Evidence from U.S. Agriculture

Quigley, D., **Y. Che**, M. Yasar, and R.M. Rejesus. Cover Crops and Climate Risks: An Application of Causal Random Forests

Alcantara*, R., B. Chidmi, **Y. Che**. Demand Analysis of Fresh Fish in the Philippines: An Application of the Almost Ideal Demand System

Alcantara*, R., C. Wang, P. Johnson, W. Guo, and **Y. Che**. An Economic Analysis of Climate Resilience of Irrigated Cotton-Based Cropping Systems in the Texas High Plains Region

Technical Publications and Popular Press

Rejesus, R.M., and **Y. Che**. "Federal Cropland Conservation Programs and Conservation Practice Adoption" *Technical Report for American Soybean Association*, January 2022.

Che, Y., and D.A. Hennessy. "Comments on 'Expanding Grass-Based Agriculture on Marginal Land in the U.S. Great Plains: The Role of Management Intensive Grazing'" *Working Paper 21-WP 618. Center for Agricultural and Rural Development, Iowa State University*, May 2021.

Che, Y., H. Feng, and D.A. Hennessy. "Rotational Grazing: A Win-Win Practice for Rancher's Bottom-line and the Environment?" *MSU Scicomm Blog*, October 16, 2020.

Hennessy, D.A., **Y. Che**, and H. Feng. "Sorry Crop Insurance: Michigan's Not Really Into You" *MSU CANR News*, October 4, 2019.

Hennessy, D.A., **Y. Che**, and H. Feng. "Rising Seed Costs & A Tale of Two Very Different Seeding Rates" *Michigan Farm News*, July 12, 2019.

Che, Y., T. Wang, H. Feng, and D.A. Hennessy. "Understanding Grazing Management Intensity Choices on the U.S. Great Plains" *Proceedings of the 5th Biennial Conference on the Conservation of America's Grasslands*. Bismarck, North Dakota, August 20-22, 2019.

Wang, T., H. Feng, D.A. Hennessy, U. Kreuter, W.R. Teague, and **Y. Che** "Challenges for Rotational Grazing Practice: Views from Non-adopters across the U.S. Great Plains" *Proceedings of the 5th Biennial Conference on the Conservation of America's Grasslands*. Bismarck, North Dakota, August 20-22, 2019.

Research Grants

Awarded

USDA NIFA AFRI, "Assessing a cotton sorghum cropping system for resilient agriculture in the Central and Southern High Plains" Lead PI: Guo, W. Co-PIs: Ritchie, G., Bednarz, CW., Wang, C., **Che, Y.**, Lege, K. \$588,000 (2025-2029)

TTU Catalyst Grant, "Driving innovation in grape and wine industry by integrating precision viticulture, terroir-driven strategies, and economic and ecological sustainability to enhance system resilience under water-limited conditions" Lead PI: Jagadish, SVK. Co-PIs: Nicolas, P., Trivedi, P., **Che, Y.**, Hossain, M., Griffis-Kyle, K., Chaiyana, A., Berdeja, M., Sarturi, J., Montague, T., Singh S., Williams, K., Qualia, M., Simpson, C., Slaughter, L. \$199,477 (2026-2028)

Conference Presentations and Seminars

2025 AAEA Annual Meeting, SCC-76 Annual Meeting, Cotton Beltwide Conference

2024 SCC-76 Annual Meeting, SAEA Annual Meeting

2023 AAEA Annual Meeting, SCC-76 Annual Meeting, North Carolina State University CEn-REP Colloquia, University of Arizona, Texas Tech University, Mississippi State University, Ohio State University, University of Florida, University of Tennessee

2022 AAEA Annual Meeting, AERE @ the Midwest Economics Association (MEA) Annual Conference, AERE Summer Conference, SCC-76 Annual Meeting, University of Tennessee, Clemson University, Michigan State University Brown Bag Seminar

2021 AAEA Annual Meeting, International Conference of Agricultural Economists (ICAE), Soil and Water Conservation Society (SWCS) International Annual Conference

2020 AAEA Annual Meeting, Michigan State University Brown Bag Seminar

2019 AAEA Annual Meeting, SCC-76 Annual Meeting, the Fifth Biennial Conference on the Conservation of America's Grasslands (America's Grasslands Conference-Working Across Boundaries)

2018 AAEA Annual Meeting

2017 AAEA Annual Meeting

Teaching Experience

Instructor, Applied Mathematical Economics (AAEC 5301), Texas Tech University, Fall 2025

Instructor, Applied Risk Analysis and Management (AAEC 3316), Texas Tech University, Spring 2024, Fall 2024, Spring 2025, Fall 2025, Spring 2026

Instructor, Data Analysis for the Agri-Food System (ABM 203), Michigan State University, Spring 2020

Teaching Assistant, Comparative Study on Environmental Regulation and Legislation (02516040), Peking University, Fall 2014

Student Advising

Doctoral Dissertation Committee Chair

Reymark Alcantara (in progress)

Master Thesis Committee Chair

Saumya Akuratiya Withanage (in progress)

Doctoral Dissertation Committee Member

Dany Resolus (in progress), Trevor Johnson (2025)

Master Thesis Committee Member

Rachyl Kitten (in progress), Claudia Taylor (in progress), Subhana Mansur (2025), Reymark Alcantara (2024), Peter Yakobe (2024), Zachary Hebbard (2024)

Dean's Representative for Dissertation Defense

Rupak Karn (2024), Bishnu Ghimire (2025)

Undergraduate Career Advising

26 (Spring 2026), 27 (2025 Fall), 29 (2025 Spring), 33 (2024 Fall)

Consulting Experience

Consultant, American Soybean Association, October 2021-April 2022

Awards

SAEA Third Place Presented Poster Award, 2026

AAEA Institutional, Behavioral, and Experimental Section Best Paper Award, 2022

Pass with Distinction in Ph.D. Econometrics Qualifying Exam, Michigan State University, 2017

Distinguished Master Thesis, Peking University, 2016

Distinguished Graduate Award, Peking University, 2016

National Scholarship, Peking University, 2015

Professional Engagement and Services

Referee: *Agricultural Economics* (3), *Agronomy Journal*, *Applied Economic Perspectives and Policy*, *Agricultural Finance Review* (2), *American Journal of Agricultural Economics* (3), *Cell Reports Sustainability* (2), *Choices*, *Cogent Food & Agriculture* (2), *Economic Modelling*, *Journal of Agricultural and Applied Economics* (6), *Journal of Agricultural and Resource Economics* (2), *Journal of Risk and Insurance* (2), *Journal of the Agricultural and Applied Economics Association*, *Renewable Agriculture and Food Systems* (2)

Reviewer: AAEA annual meeting abstracts (2025)

Committee member: Graduate comprehensive exam committee (TTU, 2025-2026)

RRO Advising for new undergraduate students (TTU, 2025 Summer)

Memberships: Agricultural and Applied Economics Association, Association of Environmental and Resource Economists, SCC-76: Economics and Management of Risk in Agriculture and Natural Resources, Western Agricultural Economics Association

Professional Development

AAEA Early Career Program, 2024

TTU Davis College Faculty Fellows Development Program, 2023-2024

Technical Strengths

Stata, R, ArcGIS, Matlab, Mathematica, Nlogit, Ngene, Gauss, C, C++, L^AT_EX