BINGYAN DAI

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EDUCATION

Cornell University Ithaca, NY

Ph.D. in Applied Economics and Management *Aug. 2021 –May. 2027*

- Committee: Miguel I. Gómez (Chair), Jinhua Zhao, and Ivan Rudik
- Dissertation: The Economics of Biological Challenges in Specialty Crop Production
- Graduate Research Assistant under USDA SCRI and OREI grants

Cornell University Ithaca, NY

M.S. in Applied Economics and Management *Aug. 2019 - Aug. 2021*

- Master thesis: Impact of Drought in California on Fresh Produce Supply Chain Configuration
- Graduate Research Assistant under USDA SCRI grant

Sichuan University Chengdu, Sichuan

B.A., Double Major in Information Resource Management and Finance *Sept. 2015 - July 2019*

PEER-REVIEWED JOURNAL PUBLICATIONS (∗led or co-led paper)

[1]. **Dai, B.∗**, Gómez, M. I., & Kaiser, H. M. (2026). Reconfiguring fresh produce supply chains in response to drought risk: Evidence from the U.S. broccoli market. *Agribusiness*, e70114. https://doi.org/10.1002/agr.70114

[2]. Kwon, E. H., Pinto, A. F., **Dai, B.,** Gómez, M. I., Riggs, D.-I. M., Loeb, G. M., Callahan, C. W., Lane, D. E., & Wallis, A. (2026). Economic analysis of using exclusion netting for spotted-wing drosophila (*Drosophila suzukii*) management in organic blueberry production systems. *Pest Management Science, 82*(2), 1302–1318. https://doi.org/10.1002/ps.70280

[3]. Yeh, D. A.∗, **Dai, B**.∗, Gómez, M. I., & Walton, V. M. (2024). Does monitoring pests pay off? A bioeconomic assessment of *Drosophila suzukii* controls. *Pest Management Science, 80*(2), 708–723. https://doi.org/10.1002/ps.7801

[4]. **Dai, B∗**., Gómez, M. I., Atallah, S. S., & Björkman, T. (2023). Changes in the supply chain outcomes of food regionalization, 2007–2017: Broccoli in the eastern United States. *PLOS ONE*, *18*(6), e0287691. https://doi.org/10.1371/journal.pone.0287691

EXTENSION PUBLICATIONS (* peer-reviewed)

[1]. **Dai, B.,** Yeh, D. A., Park K., Park, K. S., Gómez, M. I. & Walton, V. M. (2026) *. "Interactive Economic Decision Tool for Monitoring-based Strategy Analysis". Oregon State University Extension Service. *Forthcoming*.

[2]. Yeh, D. A., **Dai, B**., & Gómez, M. I. (2022). "SWD Investment Analysis Tool for Blueberry Cold Storage". North Carolina State University, NC State Extension: Specialty Crops-Blueberry. https://blueberries.ces.ncsu.edu/2022/08/swd-investment-analysis-tool-for-blueberry-cold-storage/?src=rss

WORKING PAPERS (∗led or co-led paper)

[1]. **Bingyan Dai∗**, Frank G. Zalom, and Joanna C. Chiu. "Insecticide Resistance and Market Responses: The U.S. Berry Industry" (Job Market Paper).

[2]. **Bingyan Dai∗,** Miguel I. Gómez, Xiaoli Fan, Gregory M. Loeb, Binita Shrestha, and Stephen P. Hesler. "From Pest Population to Crop Damage: Evaluating Pesticide-Use Reduction Strategies".

[3]. D. Adeline Yeh, **Bingyan Dai,** and Miguel I. Gómez. "A Game Theory Analysis of Postharvest Pest Control for Blueberry Production in North Carolina".

[4]. Matthew J. MacLachlan, Jada Thompson, **Bingyan Dai** and Kaitlyn Malakoff. "Forecasting during Changing Price Patterns from Highly Pathogenic Avian Influenza".

RESEARCH IN PROGRESS

[1]. "Production Adaptation to Insecticide Resistance: Yield Effects, Crop Switching, and Production Relocation".
[2]. "Bioeconomic Analysis of Spatial Pest Control Strategies". (With Miguel I. Gómez, Philip Fanning, and Ben Johnson)
[3]. "Innovation and Market Power in Crop Protection Products: Evidence from Specialty Crop Industry**"**.
[4]. "Economic Tradeoffs in Sustainable Pest Management for Blackberry Production". (With Miguel I. Gómez, Hannah Levenson, Hannah Burrack, and Daniel Tregeagle)

TEACHING EXPERIENCE

Instructor

[1]. Cornell SC Johnson Summer Program in Business and Economics, Intro to Python *Summer 2026*
- Enrollment: 28; Format: in person. No evaluation administered.

[2]. MSBA 6420 - Supply Chain Analytics (MBA and EMBA) *Spring 2025*
- Enrollment: 54; Format: online; Rating: 4.07/5.

[3]. CICER Summer program, Climate Change Simulation (Undergraduate) *Summer 2022*
- Enrollment: 34; Format: online; No evaluation administered.

Teaching Assistant

[1]. NBA 6410 - Supply Chain Strategy (MBA elective) *Fall 2020, Winter 2021, Spring 2024*
[2]. NBA 6420 - Supply Chain Analytics (MBA elective) *Spring 2021 and 2024*
[3]. NCCT 5020 - Microeconomics for Management (MBA core) *Spring 2023 and Fall 2023*
[4]. Cornell CICER - Entrepreneurship, Strategy and Management (Undergraduate) *Summer 2022*
[5]. Cornell CICER - Behavioral Economics (Undergraduate) *Summer 2022*
[6]. Cornell CICER - Corporate Finance and Valuation (Undergraduate) *Summer 2022*

GRANTS AND FUNDED RESEARCH

[1]. "Assessing the Economic Burden of Invasive Species in U.S. Fruits and Vegetables". Cooperative agreement, USDA Economic Research Service**,** $341,000. **Role**: Proposal Development Lead and Research Team Member. (October 1, 2026 – September 30, 2028)
[2]. "Women's Support, Mentorship, and Leadership Community at Cornell Dyson". The President's Council of Cornell Women, $9,250. **Role**: Proposal Development Lead and Co-applicant. (July 1, 2026 – June 30, 2027)

ACADEMIC PRESENTATIONS

[1]. *Agricultural and Applied Economics Association (AAEA) Annual Meeting*. "Pesticide Resistance and Market Responses". Kansas city, MO. 2026.
[2]. *International Consortium on Applied Bioeconomy Research (ICABR).* "Cost-effectiveness and Risk Assessment of Integrated Pest Management Strategies: Evidence from Spotted Wing Drosophila*".* Ravello, Italy. 2026.
[3]. *Northeastern Agricultural and Resource Economics Association (NAREA) Annual Meeting.* "Pesticide Resistance and Market Responses". Red Bank, New Jersy. 2026.
[4]. *Eastern Economics Association (EEA) Annual Meeting* (Association of Environmental and Resource Economists (AERE)-sponsored sessions). "Pesticide Resistance and Market Responses". Dominican Republic. 2026.
[5]. *Northeastern Agricultural and Resource Economics Association (NAREA) Annual Meeting*. "The Dynamic Efficiency Costs of Pesticide Resistance". Burlington, Vermont. 2025.
[6]. *Association of Environmental and Resource Economists (AERE) Annual meeting.* "The Dynamic Efficiency Costs of Pesticide Resistance". Santa Ana Pueblo, NM. 2025.
[7]. *Agricultural and Applied Economics Association (AAEA) Annual Meeting*. "The Dynamic Efficiency Costs of Pesticide Resistance". Denver, CO. 2025.
[8]. Cornell SEERE seminar. "The Dynamic Efficiency Costs of Pesticide Resistance". Ithaca, NY. 2025.
[9]. *The Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting* (Invited Talk). "Impacts and Implications of Transformative Adaptations in Food Systems in Response to Severe Droughts". Seattle, Washington. 2024.

[10]. *Agricultural and Applied Economics Association (AAEA) Annual Meeting*. "Sustainable Pest Control Strategies: A Bayesian State-space Model for Blueberry Production in New York State". New Orleans, LA. 2024.
[11]. *Northeastern Agricultural and Resource Economics Association (NAREA) Annual Meeting*. "Sustainable Pest Control Strategies: A Bayesian State-space Model for Blueberry Production in New York State". Rehoboth Beach, DE. 2024.
[12]. *Eastern Economics Association (EEA) Annual Meeting* (Association of Environmental and Resource Economists (AERE)-sponsored sessions). "Sustainable Pest Control Strategies: A Bayesian State-space Model for Blueberry Production in New York State". Boston, MA. 2024.
[13]. *Agricultural and Applied Economics Association (AAEA) Annual Meeting*. "A Bioeconomic Model for Sustainable Control of SWD in Organic Blueberry Production". Washington, D.C. 2023.
[14]. *Agricultural and Applied Economics Association (AAEA) Annual Meeting*. "A Decade Later: Changes in Economic and Environmental Outcomes of Food System Regionalization, 2007-2017: Broccoli in the Eastern United States". Anaheim, CA. 2022.
[15]. *Agricultural and Applied Economics Association (AAEA) Annual Meeting*. "Impacts of Transformative Adaptations in Food Systems in Response to Severe Droughts". Anaheim, CA. 2022

EXTENSION/OUTREACH PRESENTATIONS

[1]. SWD OREI Annual Stakeholder Advisory Board Meeting. On-Farm Integration of Organic Management of SWD in Fruit Crops. With Miguel I. Gómez. March 20, 2025.
[2]. *Action Learning Workshop of the SWD OREI project team* (Undergraduate summer school). Applied Economics and Integrated Pest Management. With Miguel I. Gómez. June 27, 2024.
[3]. *North American Horticulture Advisory Council*. Global threat to agriculture and food industry from invasive species. With Miguel I. Gómez. May 22-24, 2024.
[4]. *SWD OREI Annual Stakeholder Advisory Board Meeting*. On-Farm Integration of Organic Management of SWD in Fruit Crops. With Miguel I. Gómez. March 7-8, 2024.
[5]. *SWD SCRI Annual Stakeholder Advisory Board Meeting*. The Economics of SWD. With Miguel I. Gómez and R. Karina Gallardo. Online, Feb 12-13, 2024. Recordings: https://swdmanagement.org/webinars/
[6]. *Agricultural and Food Business Outlook Conference*. Outlook for Wine, Grapes & Ornamentals. With Miguel I. Gómez. January 19, 2024.
[7]. *International Fresh Produce Association*. The Global Scope of the U.S. Produce Industry. With Miguel I. Gómez. March 27, 2023.
[8]. *SWD SCRI Annual Stakeholder Advisory Board Meeting*. The Economics of SWD. With Miguel I. Gómez. Feb 22-23, 2023.
[9]. *SWD SCRI Annual Stakeholder Advisory Board Meeting*. The Economics of SWD. With Miguel I. Gómez. Feb 9-10, 2022.
[10]. *Agricultural and Food Business Outlook Conference.* Outlook for Wine, Grapes & Ornamentals. With Miguel I. Gómez. January 24, 2022.

SELECTED MEDIA COVERAGE

[1]. "Popular Grocery Staple Could Take Hit as California Faces Major Supply Vulnerability." Fox News, August 18, 2026.
[2]. "Is America One Drought Away From a Broccoli Shortage?" Food & Wine, August 17, 2026.
[3]. "California Drought Changes the Map for Broccoli Farmers." *E&E News by POLITICO*, July 15, 2026.
[4]. "Cornell's Regional Fresh Produce Supply Chain Model Aids in Drought Resilience." *National Center for Appropriate Technology (NCAT)*, July 7, 2026.
[5]. "U.S. Study Highlights East Coast Broccoli Expansion to Reduce Drought Risk." *FreshPlaza*, July 1, 2026.
[6]. "East Coast Broccoli Lowers Costs and Risks From California Drought." *Morning Ag Clips*, July 1, 2026.
[7]. Ramanujan, Krishna. "East Coast Broccoli Lowers Costs and Risks From California Drought." *Cornell Chronicle*, June 30, 2026.
[8]. Hrichak, Katya. "Doctoral Students Engage in Advocacy." *Cornell Chronicle*, June 1, 2026.

PROFESSIONAL DEVELOPMENT WORKSHOPS AND ACTIVITIES

[1]. *Workshop on resource economics in Outer Space*. Resources for the Future. Washington, DC. July 23-July 24, 2026.
[2]. *Doctoral Advocacy Day*. Cornell University. Capitol Hill, Washington, DC. May 13, 2026.
[3]. *Innovative Teaching Practices.* U-wide Teaching Conference. Ithaca, NY, April 18th, 2026.
[4]. *Workshop on Reducing the Labor of Beginning Agricultural Labor Economics Research*. AAEA Conference. Denver, CO, July 30, 2025.
[5]. *Workshop on Effective Grant Planning and Proposal Writing*, North Carolina A&T State University. Online. Aug 29 & Sep 18, 2024.
[6]. *Workshop on Food Prices and Forecasting Sponsored by ERS,* AAEA Conference. New Orleans, LA. July 31-August 1, 2024.
[7]. *Workshop on Measuring and Enhancing Resilience of United States Rural Communities in the Context of Climate Variability*, NAREA Conference. Rehoboth Beach, DE. June 11-June 12, 2024.
[8]. *Workshop on Survey Analysis*, Cornell Statistical Consulting Unit, Summer Workshops, Cornell University. Online. June 4- June 14, 2024.
[9]. *ENGAGE Northeast Customer Meeting*, NECC/CoBank Conference. Syracuse, NY. March 7-8, 2024
[10]. *Workshop on Bayesian Econometrics and Machine Learning*, AAEA Conference. Washington D.C. July 26, 2023
[11]. *Workshop on Computational Tools for Social Scientists*, Cornell University. Ithaca, NY. Aug 15-Aug 19, 2022.
[12]. *Workshop on Contribution of the Bioeconomy to the SDGs: Challenges for Monitoring, Measurement and Modelling*, AAEA Conference. Anaheim, CA. July 30, 2022.

FELLOWSHIPS, TRAVEL GRANTS, AND HONORS

Travel Grant, AAEA Teaching Academy	*2026*
CWAE Travel Award, AAEA Conference	*2026*
Travel Scholarship, Association of Environmental and Resource Economists (AERE)	*2025*
Research Travel Grant, Cornell University	*Spring 2025*
Graduate Research Assistantship, Cornell University	*2020 - present*
Teaching Assistantship (instructor position), Cornell University	*Spring 2025*
Summer Research Assistantship, Cornell University	*2020 - present*
Conference Travel Assistantship, Cornell University	*2021 – present*
Student Scholarship, NAREA Conference	*2024*
Award for NAREA Post Conference Workshop, NAREA Conference	*2024*
Travel Grant for Food Prices and Forecasting post-conference Workshop, AAEA Conference	*2024*
Merit-based Scholarships, Sichuan University	*2015-2019*

SERVICE

Refereeing

Agribusiness(×2)*, Choices*(×1), *PLOS ONE*(×2), *Agricultural Systems*(×13), *Research on World Agricultural Economy*(×3)

Conference reviewer

NAREA Annual Meeting (2025); *AERE@EEA* Annual Meeting (2024, 2025); *AAEA* Annual Meeting (2024, 2025, 2026); *AERE* Summer Conference (2023, 2024, 2025)

University

PhD Liaison, Applied Economics and Policy Seminars, SC Johnson College of Business	*Fall 2022*
Social Committee, Graduate Student Association of Dyson School, Cornell University	*2021 - 2022*

OTHERS

Computational skills: R, Python, Stata, GAMS, ArcGIS, Excel (spreadsheet modeling), MATLAB

Professional Associations: Agricultural & Applied Economics Association (AAEA), Association of Environmental and Resource Economists (AERE), Northeastern Agricultural and Resource Economics Association (NAREA), Institute for Operations Research and Management Sciences (INFORMS)

Languages: English (Fluent), Mandarin (Native)

REFERENCES

Miguel I. Gómez
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Charles H. Dyson School of Applied Economics and Management
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