

# PRITHVIRAJ LAKKAKULA, Ph.D.

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INFORMATION	E-mail: <a href="mailto:prithviraj.lakkakula@ndsu.edu">prithviraj.lakkakula@ndsu.edu</a> Web: <a href="http://rajlakkakula.netlify.app">rajlakkakula.netlify.app</a> GitHub: <a href="https://github.com/rajlakkakula">github.com/rajlakkakula</a>	
CERTIFICATION PROGRAMS	<b>Microsoft Corporation</b> , Redmond, WA, USA Microsoft Professional Program (MPP) in Data Science	December 2019
	<b>MIT Sloan School of Management</b> , Cambridge, MA, USA Blockchain Technologies: Business Innovation and Application	September 2018
EDUCATION	<b>University of Florida</b> , Gainesville, FL, USA Doctor of Philosophy (Ph.D.) in Food and Resource Economics	August 2014
	<b>University of Arkansas</b> , Fayetteville, AR, USA Master of Science (M.S.) in Agricultural Economics	August 2010
EDITORIAL POSITION	<b>Member of Editorial Council</b> , Journal of Agricultural and Resource Economics (JARE)	2018–2020
PROFESSIONAL EXPERIENCE	<b>Research Assistant Professor</b> Department of Agribusiness and Applied Economics North Dakota State University, Fargo, ND, USA	May 2021 – Present
	<b>Assistant Professor</b> Department of Agricultural and Environmental Sciences Tennessee State University, Nashville, TN, USA	September 2020 – October 2020
	<b>Research Assistant Professor</b> Department of Agribusiness and Applied Economics North Dakota State University, Fargo, ND, USA	January 2015 – August 2020
	<b>Post-Doctoral Associate</b> Food and Resource Economics Department University of Florida, Gainesville, FL, USA	August 2014 – December 2014
SKILLS	R, Power BI, T-SQL, Microsoft R, Azure ML Studio, TSP.	
TEACHING EXPERIENCE	<b>Instructor</b> AGEC 344: Agricultural Price Analysis Department of Agribusiness and Applied Economics North Dakota State University, Fargo, ND, USA	Spring 2020
	<b>Co-Instructor [Primary Instructor: Dr. Frederick Riggins]</b> MIS 394: Independent Study: Blockchain Commerce Department of Accounting and Information Systems College of Business North Dakota State University, Fargo, ND, USA	Fall 2018

**Instructor**

Fall 2016 &amp; Spring 2017

ECON 341: Intermediate Microeconomics  
 Department of Agribusiness and Applied Economics  
 North Dakota State University, Fargo, ND, USA

**Instructor**

June 2014 – August 2014

AEB 5516: Quantitative Methods in Agribusiness  
 Food and Resource Economics Department  
 University of Florida, Gainesville, FL, USA

**Teaching Assistant**

August 2010 – August 2014

Taught Selected Lectures in 1) AEB 3510: Quantitative Methods of Food and Resource Economics and 2) AEB 3450: Introduction to Natural Resources and Environmental Economics.  
 Food and Resource Economics Department  
 University of Florida, Gainesville, FL, USA

## GRANTS

- Awarded (as a Co-Principal Investigator) a **\$299,040** grant proposal on (*Logistical Competition for Corn Export Shipments from the United States and Ukraine: Impacts of the Russian Invasion on International Corn Trade*) from the Agricultural Marketing Service, U.S. Department of Agriculture, July 2022 [PI: Dr. William Wilson, Other Co-PI: Dr. David W. Bullock].
- Awarded (as a Co-Principal Investigator) a **\$86,000** grant proposal on (*Transportation Study on the Rail Supply Chain from the U.S. to Mexico*) from US Wheat Associates [PI: Dr. William W. Wilson, Other Co-PIs: Dr. David W. Bullock and Dr. Wesley Wilson], June 2020.
- Awarded (as a Co-Principal Investigator) a **\$67,064** grant proposal (*International Market and Trade Policy Analysis for U.S. Field Peas and Lentils*) to USDA/AMS/ND Department of Agriculture's Specialty Crop Block Grant Program [PI: Dr. Frayne Olson], June 2020.
- Submitted (as a Principal Investigator) a **\$200,305** grant proposal (*Detection of Foliar Diseases in Peas Using Image Analysis and Deep Learning*) to USDA/AMS/ND Department of Agriculture's Specialty Crop Block Grant Program [Co-PIs: Dr. Simone Ludwig, Dr. Julie Pasche, Dr. William Wilson, and Dr. Frayne Olson], March 2019 [Not Funded].
- Awarded **\$76,206** grant (as a Principal Investigator) for *Pea and Lentil Market Analysis* from USDA/AMS/ND Department of Agriculture's Specialty Crop Block Grant Program [Co-PIs: Dr. David Ripplinger and Dr. Frayne Olson], October 2015 – June 2017.

## PUBLICATIONS

[PEER-REVIEWED]

16. **Lakkakula, P.**, and Wilson, W. (2021). "How Blockchain Technology Impact Agriculture". Accepted for the *Handbook on Blockchain and Cryptocurrencies*. Edward Elgar Publishing.
15. **Lakkakula, P.**, and Schmitz, A. (2021). "**Obesity: Distributional Effects of Sweetener Taxes**". *Journal of Public Health: From Theory to Practice*. DOI: 10.1007/s10389-021-01563-5
14. **Lakkakula, P.**, Bullock, D., and Wilson, W. (2021). "**Asymmetric Information and Blockchain in Soybean Commodity Markets**". *Applied Economics Perspectives and Policy*. DOI: 10.1002/aepp.13159
13. **Lakkakula, P.**, and Wilson, W. (2021). "**Origin and Export Basis Interdependencies in Soybeans: A Panel Data Analysis**". *Journal of Agricultural Resource Economics* 46(1): 69-84. DOI: 10.22004/ag.econ.302464
12. Wilson, W., and **Lakkakula, P.** (2020). "**Secondary Rail Car Values in Grain Transportation and Basis Values**". *Agribusiness: An International Journal*. DOI: 10.1002/agr.21677
11. **Lakkakula, P.**, Bullock, D., and Wilson, W. (2020). "**Blockchain Technology in International Commodity Trading**". *The Journal of Private Enterprise*, 35 (2): 23–46
10. **Lakkakula, P.**, and Schmitz, A. (2019). "**U.S. Sweeteners: Combating Excess Consumption with an Excise Tax?**". *Agricultural Economics*. DOI: 10.1111/agec.12508
9. **Lakkakula, P.** (2018). "**Potential Impact of Sweetener Input Tax on Public Health**". *Applied Health Economics and Health Policy*. DOI: 10.1007/s40258-018-0428-0

8. **Lakkakula, P.** (2018). “Time Series Versus Causal Forecasting: An Application of Artificial Neural Networks”. *International Conference on Time Series and Forecasting (ITISE)*, Granada, Spain, September 19–21, 2018.
7. **Lakkakula, P.**, and Olson, F. (2017). “Sweeteners May Leave a Sour Note on NAFTA Renegotiations”. *Choices*. Quarter 4.
6. **Lakkakula, P.** (2017). “What are the Effects of GST on Indian Agriculture? The Case of Turmeric”. *Economic & Political WEEKLY* 52(41).
5. **Lakkakula, P.** (2017). “Testing Causality Among Five Fertilizer Prices”. *Applied Economics Letters*. DOI:10.1080/13504851.2017.1352067
4. **Lakkakula, P.**, Schmitz, A., and Ripplinger, D. (2016). “U.S. Sweetener Demand Analysis: A QAIDS Model Application”. *Journal of Agricultural and Resource Economics* 41(3): 533–548.
3. **Lakkakula, P.**, Haynes, D.J., and Schmitz, T.G. (2015). “Genetic Engineering and Food Security: A Welfare Economics Perspective”. *Food Security in an Uncertain World (Frontiers of Economics and Globalization)*, Volume 15 (pp. 179–193). Bingley, UK: Emerald Group Publishing.
2. **Lakkakula, P.**, Dixon, B. L., Thomsen, M. R., Wailes, E. J., and Danforth, D. M. (2015). “Global Rice Trade Competitiveness: A Shift-Share Analysis”. *Agricultural Economics*. DOI: 10.1111/agec.12162
1. **Lakkakula, P.**, and Schmitz, A. (2013). “Sugar and High Fructose Corn Syrup (HFCS) Consumption Shifts: Change in Tastes or Relative Prices?”. *International Sugar Journal* 115: 555–559.

## Papers Under Review

- David W. Bullock, **Lakkakula, P.** and William W. Wilson (2022). Russia-Ukraine Conflict and the Global Food Grain Price Analysis. Under Review.
- **Lakkakula, P.**, and Huntington-Klein, N.C. (2022). The Effect of US-China Trade War on US Soybean Basis: A Synthetic Control Approach. Under Review.
- SenGupta, I., Awasthi, S., Wilson, W.W., and **Lakkakula, P.** (2022). Global Soybean Export Flows to China: An Application of Explainable Machine Learning. Under Review.
- **Lakkakula, P.**, William W. Wilson., and David W. Bullock. (2022). Short-Term Effect of Trade Policies on Global Corn-Market Shares. Under Review
- William W. Wilson., **Lakkakula, P.**, and David W. Bullock. (2022). Logistical Competition for Corn Shipments From The United States and Ukraine to Targeted International Markets. Under Review.

## SELECTED CONFERENCE PAPERS/RESEARCH REPORTS

- Wilson, W., Bullock, D., and **Lakkakula, P.** (2020). Dynamic Changes in Rail Shipping Mechanisms for Grain. Agribusiness and Applied Economics Report No. 794. North Dakota State University.
- **Lakkakula, P.**, Bullock, D., and Wilson, W. (2018). “Blockchain Technology in International Commodity Trading”. Conference paper submitted to RAP on Blockchain conference in Fargo, North Dakota.
- **Lakkakula, P.**, and Wahl, T. (2018). “Potential Effects of the Additional Duties Imposed by India on U.S. Chickpeas and Lentils”. Research Report.
- **Lakkakula, P.**, Olson, F., and Ripplinger, D. (2017). “Pea and Lentil Market Analysis”. Research report submitted to North Dakota Department of Agriculture’s Specialty Crop Block Grant Program.
- **Lakkakula, P.** (2015). “The United States Sweetener Excise Tax Policy Analysis”. Selected paper prepared for presentation at the Southern Agricultural Economics Association’s 2015 Annual Meeting, Atlanta, January 31–February 3, 2015.

## PRESENTATIONS

17. Selected paper presentation titled *Impact of Blockchain Technology in International Grain Trading* at the AAEEA conference in Atlanta, GA, July 21–23, 2019.
16. Selected paper presentation titled *Blockchain Technology in International Commodity Trading* at Research And Practice (RAP) on Blockchain conference in Fargo, ND, October 27, 2018.
15. Selected paper presentation titled *The Export/Import Process and Streamlining Trade* at Research And Practice (RAP) on Blockchain conference in Fargo, ND, October 27, 2018.
14. Selected paper presentation titled *Time Series Versus Causal Forecasting: An Application of Artificial Neural Networks* at International Conference on Time Series and Forecasting (ITISE2018) in Granada, Spain, September 19–21, 2018.
13. Selected paper presentation titled *Optimal Time for Treatment of a Crop Disease: A Real Options Approach* at Agricultural & Applied Economics Association Annual Meeting at Washington, DC, August 5–7, 2018.
12. Presented a paper titled *Welfare Analysis of Sweetener Trade between the United States and Mexico* at the International Agricultural Trade Research Consortium (IATRC) meetings in Washington, DC, December 3–5, 2017.
11. Presented a paper titled *Fertilizer Price Analysis* at the 24TH Annual International Moose Jaw Conference, Moose Jaw, Saskatchewan, Canada, June 26–27, 2017.
10. Presented a proposal titled *Detection of Leaf and Stem Diseases in Soybeans via Image Analysis and Deep Learning* to the North Dakota Soybean Council, Fargo, ND, June 2017.
9. Presented a poster titled *Forecasting Market Volumes of Top Categories of Peas and Lentils*, at the Institute of Food Technologists (IFT) Conference, Chicago, IL, July 16, 2016.
8. Presented *Quantifying the Market for Barley in the Ingredient Market* along with Dr. Frayne Olson at the U.S. Grain Council in Fargo, ND, 2016.
7. Presented *US Sweetener Price Forecasting: Implications for Sweetener Market*, an accepted paper at Southern Agricultural Economics Association (SAEA) meetings, San Antonio, TX, February 2016.
6. Presented an accepted paper at Southern Agricultural Economics Association (SAEA) meetings, Atlanta, GA, February 2015.
5. Presented the effects of NAFTA integration on US Sugar Program at the University of Florida to a group of Ph.D. students in the Food and Resource Economics Department, Gainesville, FL, March 2014.
4. Presented the economics of pollution control and an overview of effective pollution control policies to a group of undergraduate students at the University of Florida, Gainesville, FL, November 2013.
3. Presented a poster on global rice export flows at the Southern Agricultural Economics Association (SAEA) Conference, Corpus Christi, TX, February 2011.
2. Presented a poster on global rice trade competitiveness at the Third International Rice Congress (IRC), Hanoi, Vietnam, November 2010.
1. Presented US rice export flows using a gravity model of trade at the Rice Technical Working Group (RTWG) Biennial Meeting, Biloxi, MS, February 2010.

## AWARDS

- Received an award [Honorable Mention] for “Sweeteners May Leave a Sour Note on NAFTA Renegotiations” under Outstanding Choices Article category at AAEEA Annual Meetings, Washington DC, 2018.
- Received the Grinter Fellowship Award of \$2200 for an outstanding (incoming) Ph.D. student, Gainesville, FL, August 2010 – July 2011.

LEADERSHIP	<b>Vice President, Graduate Student Organization</b> Food and Resource Economics Department University of Florida, Gainesville, FL <b>Duties</b> <ul style="list-style-type: none"> <li>• Organized orientation session and guided new incoming graduate students in the department</li> <li>• Communicated the needs and concerns of the graduate students to the Graduate Student Council, Graduate Coordinator, and the department chair</li> <li>• Served as a liaison between approximately 100 graduate students and the administration of the Food and Resource Economics Department</li> <li>• Attended monthly graduate student council meetings to elicit and distribute information pertaining to scholarships, travel grants and other issues of interest</li> </ul>	January 2010 – December 2011
SERVICE	<ul style="list-style-type: none"> <li>• Served as a Chair of the Award Committee in Agribusiness and Applied Economics Department at North Dakota State University, August 2021 – Present.</li> <li>• Volunteered and served as a judge in a poster session organized at university level by Graduate Student Council on Graduate Research Day at the University of Florida, Fall 2014.</li> <li>• Served on a graduate student panel at the University of Florida to advise and encourage undergraduate students to enroll in Food and Resource Economics program, November, 2011 – November, 2012.</li> <li>• Participated as a volunteer at 93<sup>rd</sup> Indian Science Congress Association, January 2007.</li> <li>• Served as head for a group of 40 other volunteers at National Cadet Corps (NCC) and National Social Service (NSS), ANGRAU, India, August 2007.</li> </ul>	
REFEREE	<i>Applied Agricultural Perspectives and Policy, Agricultural Economics, Journal of Agricultural and Resource Economics (JARE), American Journal of Agricultural Economics (AJAE), Western Agricultural Economics Association (WAEA) Conference Meetings, Agricultural and Applied Economics Association (AAEA) Conference Meetings, and Journal of International Agricultural Trade and Development.</i>	
POPULAR PRESS	<ul style="list-style-type: none"> <li>• “Tariffs in India and China hit Pulse Producers.” <i>AgWeek</i>.</li> <li>• “NAFTA renegotiation and issues related to sweetener trade.” <i>AgWeek</i>.</li> <li>• “NAFTA renegotiation and the sweetener trade.” <i>Morning AgClips</i>.</li> <li>• “What is Big Data in the Context of Agriculture?” <i>Dairy Herd Management</i>.</li> </ul>	