

Daniel Tregeagle

Agricultural and Resource Economics
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Education

Ph.D. in Agricultural and Resource Economics, University of California, Berkeley, 2017.

Dissertation Title: "The Dynamics of Perennial Crop Production and Processing."

Committee: David Zilberman (chair), Larry Karp, David Romer, Leo Simon.

Fields: Environmental and Resource Economics, Agricultural Policy

M.S. in Agricultural and Resource Economics, University of California, Berkeley, 2012.

Bachelor of Resource Economics (Hons 1M), University of Sydney, 2010.

Professional Experience

Current Position

Assistant Professor and Extension Specialist, North Carolina State University. August 2019–Present.

Previous Positions

Post-Doctoral Scholar, Agricultural and Resource Economics, University of California, Davis. Supervisor: Prof. Rachael Goodhue. July 2017–July 2019.

Visiting Researcher, School of Economics, University of Sydney, June 2018.

Graduate Research Assistant for Prof. David Zilberman, University of California, Berkeley, Fall 2011–June 2013; Spring 2014; Spring 2015–Spring 2017.

Assistant to Prof. Tony Fisher, helping him prepare and typeset a book of natural resource economics lecture notes, University of California, Berkeley; 2016–2018.

Graduate Economist at the Australian Bureau of Agricultural and Resource Economics and Science, Jan–July 2011.

Summer Intern at the Australian Bureau of Agricultural and Resource Economics and Science, Jan–Feb 2010.

Teaching

Teaching Experience

Instructor for ECG700 *Fundamentals of Microeconomics*, NC State, Fall 2020–2021. (Masters students).

Instructor, Master of Development Practice Math Bootcamp, UC Berkeley, Summer 2014–2017 (masters students).

Discipline-Cluster Workshop Leader for Quantitative Social Sciences, UC Berkeley GSI Teaching Conference, Spring 2017 (masters and doctoral students).

Teaching Assistant, ARE 298, Dynamic Modeling (a 2 week intensive course) for Prof. Christian Traeger, April 2015 (doctoral students and professors).

Graduate Student Instructor, ARE 211, Mathematical Methods for Agricultural and Resource Economics for Prof. Leo Simon, UC Berkeley, Fall 2014 (doctoral students).

Graduate Student Instructor, EEP 175, The Economics of Climate Change for Prof. Christian Traeger, UC Berkeley, Fall 2013 (senior undergraduate students).

ARE Departmental Tutor, ECON 204, Mathematical Tools for Economists, UC Berkeley, Summer 2013 (doctoral students).

Teaching Assistant, RSEC1031, Introduction to Resource Economics for Prof. Michael Harris, University of Sydney, Aug–Nov 2010 (freshman undergraduate students).

Peer-Assisted Study Session Facilitator for Introductory Micro- and Macroeconomics, University of Sydney, 2008–2010 (freshmen undergraduate students).

Video Peer Assisted Study Session Facilitator for an Anti-plagiarism Component of 'Business in the Global Environment', University of Sydney, 2009–2010 (freshmen undergraduate students).

Guest Lectures

'Produce Marketing,' Guest lecture for HS462 *Post-Harvest Handling*, Prof. Penelope Perkins-Veazie, Hort. Sci, NCSU, Spring 2021.

'Small Fruit Budgeting,' Guest lecture for HS422 *Small Fruit Production*, Prof. Hamid Ashrafi, Hort. Sci, NCSU, Spring 2020.

Advising

PhD committee member for Kyle Freedman, NC State, Hort. Sci, Ongoing.

Masters committee member for Austin Wrenn, NC State, Hort. Sci, Ongoing.

Masters committee co-chair for Matthew Winters, Econ, Graduated 2021.

PhD committee member for Ebrahim Al-Ebrahim, NC State, Econ, Graduated 2020.

Research

Journal Articles

Mace, Kevi, Jessica Rudder, Rachael Goodhue, Tor Tolhurst, **Daniel Tregeagle**, Hanlin Wei, Elizabeth Grafton-Cardwell, Ian Grettner, Houston Wilson, Robert Van Steenwyk, Frank Zalom, John Steggall "[Balancing bees and pest management: Projected costs of proposed bee-protective neonicotinoid regulation in California](#)". *Journal of Economic Entomology*. 2021.

Working Papers

Kilduff, Alice and **Daniel Tregeagle**. *WTP for Produce: A Meta-Regression Analysis Comparing Producers and Consumers*

Tregeagle, Daniel, and David Zilberman. *Managing the Age of Perennial Crops for Processing: Maximum Sustainable Yield Is a Good Heuristic*.

Tregeagle, Daniel, and David Zilberman. *The Yield Dynamics of Perennial Crops: An Application to Sugarcane in Brazil*.

Tregeagle, Daniel and Leo Simon. *The Optimal Management of Orchards*.

Goodhue, Rachael, Brittney Goodrich, and **Daniel Tregeagle**. *Implications of the California Clean Environment Initiative (2017) for California Crop Agriculture: An Aggregate Assessment*.

Tregeagle, Daniel, Michael Harris, and Greg Hertzler. *Damaged Goods: A Resource Depletion Model of Addictive Consumption*.

Extension Articles

Tregeagle, Daniel “Specialty Crops in 2020: COVID-19 and Other Challenges”. *NC State Economist* Winter 2020.

Wei, Hanlin, Rachael Goodhue, Kevi Mace, Jessica Rudder, Tor Tolhurst, **Daniel Tregeagle**, Beth Grafton-Cardwell, Ian Grettenberger, Houston Wilson, Robert Van Steenwyk, and John Steggall. “Estimated Cost of the Withdrawal of the Insecticide Chlorpyrifos for Six Major California Crops”. *ARE Update* 23(4) 2020: 13–15. University of California Giannini Foundation of Agricultural Economics.

Blecker, Steven, Steven Fennimore, Rachael Goodhue, Kevi Mace, John Steggall, **Daniel Tregeagle**, Tor Tolhurst and Hanlin Wei. “Economic Value of the Herbicide Dacthal for Brassica and Allium Crops in California”. *ARE Update* 22(2) 2018: 5–8. University of California Giannini Foundation of Agricultural Economics.

Tregeagle, Daniel, and David Zilberman. “Implications of Disrupting a Perennial Crop Replanting Cycle: The Brazilian Sugarcane Example”. *ARE Update* 22(1) 2018: 5–8. University of California Giannini Foundation of Agricultural Economics.

Reports

Daniel Tregeagle and Debby Wechsler. *Report on NARBA’s 2020 Pricing and Marketing Survey*. Aug 4, 2020. Updated Nov 20, 2020.

Fruit Growers News, Aug 25, 2020: <https://fruitgrowersnews.com/news/2020-caneberry-pricing-survey-report-released/>

Rachael Goodhue, Kevi Mace, Tor Tolhurst, **Daniel Tregeagle**, Hanlin Wei, Beth Grafton-Cardwell, Ian Grettenberger, Houston Wilson, Robert Van Steenwyk, Frank Zalom, and John Steggall. *Economic and pest management evaluation of nitroguanidine-substituted neonicotinoid insecticides: eight major California commodities*. Prepared for the Department of Pesticide Regulation by the California Department of Food and Agriculture’s Office of Pesticide Consultation and Analysis and the University of California. July 29, 2020.

Rachael Goodhue, Kevi Mace, Jessica Rudder, Tor Tolhurst, **Daniel Tregaele**, Hanlin Wei, Beth Grafton-Cardwell, Ian Grettenberger, Houston Wilson, Robert Van Steenwyk, John Steggall. *Economic and Pest Management Evaluation of the Withdrawal of Chlorpyrifos: Six Major California Commodities*. Prepared for the Department of Pesticide Regulation by the California Department of Food and Agriculture's Office of Pesticide Consultation and Analysis and the University of California. Dec 2019.

Rachael Goodhue, Kevi Mace, Tor Tolhurst, **Daniel Tregaele**, Hanlin Wei, Beth GraftonCardwell, Ian Grettenberger, Houston Wilson, Robert Van Steenwyk, Frank Zalom, and John Steggall. *Economic and pest management evaluation of nitroguanidine-substituted neonicotinoid insecticides: nine major California commodities*. Prepared for the Department of Pesticide Regulation by the California Department of Food and Agriculture's Office of Pesticide Consultation and Analysis and the University of California. August 26, 2020.

Rachael Goodhue, Tor Tolhurst and **Daniel Tregaele**. *Economic Impacts of Potential Changes in 1,3-Dichloropropene Township Caps*. Prepared for the California Department of Food and Agriculture's Office of Pesticide Consultation and Analysis. Jan 2019.

Rachael Goodhue, Steven Fennimore, **Daniel Tregaele**, Tor Tolhurst, and Hanlin Wei. *An Economic and Pest Management Evaluation of the Herbicide Dacthal in California Agriculture*. Final Report submitted to the California Department of Food and Agriculture, Office of Pesticide Consultation and Analysis. August 2018.

Goodhue, Rachael, **Daniel Tregaele**, Tor Tolhurst, Christopher DeMars. *Potential Regulation Regarding Fumigant Application Notifications: Economic Effects for Agriculture in Thirteen Major Agricultural Counties*. Final Report submitted to the California Department of Food and Agriculture, Office of Pesticide Consultation and Analysis. March 2018.

Goodhue, Rachael, Brittney Goodrich and **Daniel Tregaele**. *Implications of the California Clean Environment Initiative (2017) for California Crop Agriculture: An Aggregate Assessment*. Final report submitted to the California Department of Food and Agriculture, Office of Pesticide Consultation and Analysis. January 2018.

Hughes, Neal, Cheryl Gibbs, Astrid Dahl, **Daniel Tregaele** and Orion Sanders. *Storage Rights and Water Allocation Arrangements in the Murray-Darling Basin*, Australian Bureau of Agricultural and Resource Economics and Sciences technical report, Canberra, December 2013.

Conference Papers

Plakias, Zoë and **Daniel Tregaele** (2021) *Demand and supply of specialty crop supply elasticities: Insights from a profession-wide survey*. Poster accepted at the Agricultural and Applied Economics Association Meeting, Austin, TX.

Tregaele, Daniel, Leo Simon (2018) *The Optimal Management of Orchards*. Poster presented at the Agricultural and Applied Economics Association Meeting, Washington, DC.

Tregaele, Daniel, Leo Simon (2018) *The Optimal Management of Orchards*. Presented at the Monash University Early Career Economists Conference, Melbourne, Australia.

Tregaele, Daniel, Leo Simon (2018) *The Economics of Perennial Orchards with Endogenous Age-Classes*. Presented at the Western Economic Association International Conference, Newcastle, Australia

Tregaele, Daniel, and David Zilberman (2016) *The Yield Dynamics of Perennial Crops: An Application to Sugarcane in Brazil*, Presented as a lightning talk at the American Applied Economics Association Conference, Boston.

Tregeagle, Daniel, Michael Harris and Greg Hertzler (2011) *Damaged Goods: A Resource Depletion Model of Addictive Consumption*, Presented at the Australian Agricultural and Resource Economics Society Conference, Melbourne

Works in Progress

Demand and supply of specialty crop supply elasticities: Insights from a profession-wide survey (with Zoë Plakias)

Updating demand and supply elasticities for citrus and related crops (with Zoë Plakias and Jonathon Siegle)

Measuring grower and market intermediary willingness-to-pay for improvements in cucurbit disease resistance (with Alice Kilduff)

Improving impact measurement for specialty crop extension programs

Strengthening and expanding muscadine markets (with Chris Gunter, Mark Hoffmann, Lynette Johnson, Penelope Perkins-Veazie and Craig Mauney)

Mapping and measuring the strawberry nursery supply chain (with Rachael Goodhue and Heidi Schweizer).

Valuing resistance to root knot nematodes in sweetpotato

Updating the Southeastern Strawberry Production Guide (PD: Mark Hoffmann)

Valuing the Precise Indoor Conditioning System (PIVC) (with Mark Hoffmann and Ricardo Hernandez)

Presentations

Extension Presentations

Economic Outlook for Produce. Brushy Mountain Tree Fruit Meeting, Wilkesboro, NC.

Southeastern Blackberry Budgets: Overview and How to Use Them. Arkansas Blackberry Growers Association, Winter Meeting, Feb 5, 2022. Invited keynote.

Economic Outlook for Produce and Apples. Winter Apple School, Hendersonville, NC. Feb 2, 2022.

Produce Supply Chain Updates. North Carolina Peach Growers' Annual Meeting. Moore County, NC. Jan 25, 2022.

Gazing at the Big Picture in a Crystal Ball: Planning your Farm within the Macroeconomic and Regulatory Environment. Southeastern Regional Fruit and Vegetable Conference. Savannah, GA. Jan 8, 2022.

Overview of the 2021 NC Blackberry Budget... and How to Use It. Southeastern Regional Fruit and Vegetable Conference. Savannah, GA. Jan 7, 2022.

Perspectives on regional marketing of Southeastern-grown blackberries (Panel with three blackberry growers). Southeastern Regional Fruit and Vegetable Conference. Savannah, GA. Jan 6, 2022.

Fruit and Vegetable Economic Trends. NC Fresh Produce Safety Task Force, Reconnect and Refocus Meeting. Raleigh, NC. Dec 14, 2021.

An Overview of the 2021 NC Tomato Crop Budget. NC Ag Expo. Raleigh, NC. Nov 30, 2021.

Strawberry Budgeting. Southeastern Plasticulture Strawberry School. (Delivered via Zoom due to COVID-19). Oct 28, 2021.

2020 NC Green Industry Outlook. NC Farm Bureau Ornamental Horticulture Advisory Committee Meeting. (Delivered via Zoom due to COVID-19). Mar 2, 2021.

Strawberry budgeting and economics. NCSU Strawberry Extension Agent Training. (Delivered via Zoom due to COVID-19). Dec 16, 2020.

Caneberry budgeting and prices. NCSU Caneberry Extension Agent Training. (Delivered via Zoom due to COVID-19). Dec 9, 2020.

What do NC specialty crop growers need to know about climate change? ARE Extension Agent Educational Series (delivered via Zoom due to COVID-19). Nov 18, 2020.

2020 NC Specialty Crop Outlook. ARE Extension Agent Educational Series (delivered via Zoom due to COVID-19). Nov 18, 2020.

An Introduction to the US Fruit and Vegetable Industry. Expo Alimentaria, Lima, Peru (delivered via Zoom due to COVID-19). Oct 8, 2020.

Blackberry Crop Budgets: What Do Growers Want to Know? SE Regional Fruit and Vegetable Conference. Savannah, GA. Jan 9, 2020.

How to Use and Adopt Budgeting Tools for Your Blackberry System. Fundamentals of Blackberry Production Workshop. SE Regional Fruit and Vegetable Conference. Savannah, GA. Jan 9, 2020.

Money Can Grow on Trees: Apple Economics. SE Apple Growers Meeting. Asheville, NC. Jan 7, 2020.

Scholarly Conferences

Agricultural and Applied Economics Association Conference, Austin, TX, USA. *Demand and supply of specialty crop supply elasticities: Insights from a profession-wide survey*, Aug 2021.

Annual meeting for SCRI project: 'Next-Generation Disease Resistance Breeding and Management Solutions for Strawberry.' *Strawberries: Recent Trends in Value, Acreage, and Fumigant Use*. UC Davis. Aug 2018.

Agricultural and Applied Economics Association Conference, Washington, DC, USA. *The Optimal Management of Orchards*, 2018.

Monash University Early Career Economists Conference. *The Optimal Management of Orchards*, Jun 2018.

The University of Sydney, Agricultural, Environmental, and Resource Economics Reading Group. *The Optimal Management of Orchards*, Jun 2018.

UC Davis, Agricultural Policy Workshop. *The Economics of Perennial Orchards with Endogenous Age-Classes*, Feb 2018.

Western Economic Association International Conference, Newcastle, Australia (Twice: at the Early-Career Research Workshop and at the Conference). *The Economics of Perennial Orchards with Endogenous Age-Classes*, Jan 2018.

UC Berkeley Agricultural, Food and Resource Policy Workshop. *The Long-run and Transition Behavior of Optimally Managed Perennial Crops*, Spring 2017.

Agricultural and Applied Economics Association Conference, Boston, USA. *The Yield Dynamics of Perennial Crops: An Application to Sugarcane in Brazil*, 2016.

International Consortium of Applied Bioeconomy Researchers Conference, Ravello, Italy, *The Optimal Management of the Sugarcane-Refinery Supply Chain*. 2016.

Canadian Agricultural Economics Society and Western Agricultural Economics Association Joint Annual Meeting, Victoria, British Columbia. *Explaining the Stagnation of the Brazilian Biofuel Industry: The Role of Sugarcane Renewal*, 2016.

International Consortium of Applied Bioeconomy Researchers Conference, Ravello, Italy. *Interest Rates and the Stagnation of the Brazilian Biofuel Industry*, 2015.

Graduate ARE Student Conference, Riverside, California. *Interest Rates and the Stagnation of the Brazilian Biofuel Industry*, 2015.

Graduate ARE Student Conference, Davis, California. *Optimal Production of Perennials when Processing Matters*, 2014.

Graduate ARE Student Conference, Berkeley, California. *Investment, Age Structure and Sugarcane Yield: Theory and Evidence from Brazil*, 2013.

Energy and Bioscience Institute Retreat, Urbana–Champaign, Illinois. *Financial Considerations and the Productivity of Biofuel in Brazil*, 2013.

Expert Testimony

Steven Fennimore and **Daniel Tregeagle** (co-presenters). *An Economic and Pest Management Evaluation of the Herbicide Dacthal in California Agriculture*. Sworn testimony provided to a public hearing ‘pertaining to chlorthal-dimethyl degradation product residue detections in ground water’. California Environmental Protection Agency. August 29, 2018. Website: https://www.cdpr.ca.gov/docs/emon/grndwtr/chlorthal_dimethyl/chlorthal_dimethyl.htm

Media

Fertilizer Price Spike Highest Since Great Recession. AgNet Media. Jan 17, 2022. [Link](#).

More People Shopping Locally. Good Day Charlotte TV Interview. 11 May 2021.

NC Trend: Tater Tale. Business North Carolina. Dec 2020. [Link](#).

Sweet Success with Sweetpotatoes. Episode of the NC State College of Agriculture and Life Sciences Podcast *Farms, Food and You*. [Link](#).

Local farmers adjust and adapt sale models amid coronavirus pandemic. The Daily Tar Heel. 9 Aug 2020. [Link](#).

Researchers Take a Look into the Future of Strawberries: Survey Coming to Growers to Gauge Interests. California Ag Today. 1 July, 2018. [Link](#).

Grants

Total Grant Funding: \$17,594,017.40

Economics Component of Grant Funding: \$1,242,716

Co-Principal Investigator, USDA SCRI. "Rapid Development of Marketable Root-Knot Nematode Resistant Sweetpotato Varieties: Translation of Genomics and Advanced Phenomics into On-Farm Crop Management Solutions". Economics Component: \$266,259. Total Grant: \$5,011,710. September 2020 – August 2024.

Co-Principal Investigator, USDA SCRI. "Development and Integration of Next-Generation Propagation Strategies to Increase the Resilience of the US Strawberry Supply Chain". Economics Component (with Rachael Goodhue and Heidi Schweizer): \$598,167. Total Grant: \$5,294,195. Sep 2021 – Aug 2025.

Co-Principal Investigator, NCDA Specialty Crop Block Grant, "Precise Indoor Vine Conditioning (PIVC)". Total Grant \$85,840. Jan 2022 – Dec 2023.

Co-Principal Investigator, ERS Cooperative Agreement, "Economic Impact of Citrus Greening and Import Competition on U.S. Citrus". Economics Component (with Zoë Plakias): \$80,000 component with Zoë Plakias. Jun 2021 – Sep 2023.

Co-Principal Investigator, NCDA NECP grant "Strengthening and Expanding Muscadine Markets." Economics Component: \$9,135. Total Grant: \$70,129. Jan 2021 – Dec 2022.

Principal Investigator, NCSU Fruit Extension Team, "Reviewing extension program impact evaluation methods". Grant: \$1500. Spring 2021.

Co-Principal Investigator, USDA SCRI "CucCAP2: Harnessing Genomic Resources For Disease Resistance and Management in Cucurbit Crops — Bringing The Tools To The Field". Economics Component: \$287,655. Total Grant: \$7,050,603.40. September 2020 – August 2024.

Awards

Scholarship to attend 2019 Southeast Strawberry Expo, Raleigh NC (\$185).

Travel grant to attend *The Bio-Economy: Technology and Policy Path Forward* at Rutgers University. Sept 2016 (\$400).

Outstanding Graduate Student Instructor Award, UC Berkeley, Fall 2013.

University of Sydney Scholarship with Merit, University of Sydney, 2007–2010.

Joane Josephine Harris Bequest Scholarship, University of Sydney, 2007–2010.

Best Oral Presentation – Economics, Agriculture Faculty Honours Conference – University of Sydney, 2010.

Dean's List of Excellence in Academic Performance, University of Sydney, 2007, 2009–2010.

Academic Merit Prize, University of Sydney, 2009.

Martin McIlrath Scholarship in Agriculture, University of Sydney, 2009.

Clifford Dawson Holliday Prize in Agriculture, University of Sydney, 2009.

Alan Randall Prize in Resource Economics, University of Sydney, 2009.

Most Valuable Facilitator Award (Facilitator's Choice), Peer-Assisted Students Sessions (PASS) Program, Winter Semester, 2009.

Warren F Musgrave Memorial Prize in Resource Economics, University of Sydney, 2008.

Belmore Scholarship for First Year, University of Sydney, 2007.

Bruce R Davidson Memorial Prize in Resource Economics, University of Sydney, 2007.

Other Training

[Certificate of Teaching and Learning in Higher Education](#), UC Berkeley, 2017.

COMPASS Science Communication Training Workshop, 25 July, 2017

Collaborative Facilitation Training Workshop, UC Cooperative Extension, 30 Nov, 2016

Service

Peer Review

Reviewer for

American Journal of Agricultural Economics

American Chemical Society Books

Climatic Change

California Agriculture

Economic Development and Cultural Change

HortTech

Horticultural Science

Global Change Biology – Bioenergy

Renewable Agriculture and Food Systems

Routledge Studies in Agricultural Economics

Abstract reviewer for Agricultural and Applied Economics Association annual meeting, 2020-2022.

Judge for AAEA Specialty Crop Economics (SCE) section best paper awards, 2021.

Grant Review

USDA NIFA, Farm of the Future, Panel Member, 2021.

North Carolina State University

Department of Agricultural and Resource Economics

Teaching peer review committee member for Andrew Branan, ARE106, Spring 2022.

Committee member, Teaching Assistant Professor (Agribusiness Marketing) Search, Spring 2022.

Outstanding Ph.D. Dissertation Award Committee, 2021.

Committee member, ARE Department Head Search, Fall 2020–Spring 2021.

ARE Team Captain for State Employees Combined Campaign, Oct–Nov 2019

College of Agriculture and Life Sciences

Committee member, NC Fruit Extension Team Award of Distinction, Fall 2020.

CALS Division Leader for State Employees Combined Campaign, Oct–Nov 2019

Chair, Economic Impacts Sub-Committee, NC Fruit Extension Team , 2019–Present.

The Graduate School

Graduate School Representative, Dissertation Defence, Pratik Misra, Math Department, April 4, 2021.

Graduate School Representative, Dissertation Defence, Ashley Holland, Psychology Department, Dec 11, 2020.

Graduate School Representative, Preliminary Exam, Ashley Holland, Psychology Department, May 22, 2020.

Graduate School Representative, Preliminary Exam, Pratik Misra, Math Department, Oct 2, 2019

Conferences

Discussant at Western Economic Association International Conference, Newcastle, Australia. Jan 2018.
(For two sessions).

Graduate ARE Student Conference at Davis, Berkeley Organizer, 2014.

Graduate ARE Student Conference at Berkeley, Chair, Conference Organizing Committee, 2013.

Graduate ARE Student Conference at Davis, Berkeley Organizer, 2012.

Professional Memberships

Agricultural and Applied Economics Association

American Economic Association

American Society for Horticultural Science

National Sweetpotato Collaborators Group