

**Antoine Champetier**  
 Researcher, Consultant  
 Modeling in ecological and agricultural economics

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### **Interests:**

Modeling and data analysis in economics, ecology and epidemiology. Agricultural and resource economics and policy; pollination, invasive species, climate change, agent-based modeling, network analysis.

### **Employment and research experience**

2022 to present	Scientific officer at the Swiss 3RCC.
2021 to 2022	Researcher: Epidemiological modeling, Veterinary Public Health Institute, University of Bern.
2017 to present	Consultant: Modeling in Economics and Ecology, Visiting Lecturer: Agricultural Policy, Microeconomics, UC Davis
2013-2016	Post-doctoral Researcher, Department of Environmental Systems Science, ETH Zurich
2010-2013	Post-doctoral Fellow, UC Agricultural Issues Center, UC Davis Agricultural Sustainability Institute,
2005- 2013	Research Assistant for Daniel A. Sumner.

### **Teaching experience**

2017 to present	Agricultural Policy, (undergraduate)
2018	Microeconomics (undergraduate).
2014-2016	Agribusiness Management (undergraduate), Food Economics (graduate)
2012	Agricultural Policy (undergraduate).
2004-2009	Teaching Assistant: Financial Management of the Firm, Quantitative Analysis for Business Decisions, Microeconomics, Agricultural Policy (all undergraduate).

### **Education**

2010	<b>Ph.D., Agricultural and Resource Economics, University of California, Davis,</b> Dissertation title: “The Bioeconomics of Pollination in Agriculture”, Advisors: Daniel Sumner, James Wilen, and Richard Howitt.
2004	<b>Master of Engineering, AgroParisTech</b> École Nationale du Génie Rural, des Eaux et des Forêts.
2002	<b>Master of Engineering, AgroParisTech</b> Institut National Agronomique de Paris-Grignon.

### **Languages and programing**

French, English, and Spanish: fluent; German and Portuguese: basic.

R, Matlab, GAMS, Stata, Microsoft Office, LaTeX: fluent; Python, Html, PHP, SQL: basic.

**Peer-reviewed Publication**

Salvioni, C., & Champetier, A. (2022). “A Survey of Experts’ Opinions on the Management of the Small Hive Beetle in Italy”. *Sustainability*, 14(12), 7004.

A. Champetier, (2021) “Environmental Economics of Pollination” *Oxford Research Encyclopedia of Environmental Science*, <https://doi.org/10.1093/acrefore/9780199389414.013.750>

A. Champetier, H. Lee and D.A. Sumner, (2019), “Are the Almond and Beekeeping Industries Gaining Independence?” *Choices Magazine*, 34(4)  
[http://www.choicesmagazine.org/UserFiles/file/cmsarticle\\_712.pdf](http://www.choicesmagazine.org/UserFiles/file/cmsarticle_712.pdf)

A. Champetier, H. Lee and D.A. Sumner, (2019), “Honey, Forage and Almond-Pollinating Honey Bees”, *Choices Magazine*, 34(4) [http://www.choicesmagazine.org/UserFiles/file/cmsarticle\\_713.pdf](http://www.choicesmagazine.org/UserFiles/file/cmsarticle_713.pdf)

A. Champetier and D.A. Sumner, (2019), “Marginal Costs and Likely Supply Elasticities for Pollination and Honey”, *American Journal of Agricultural Economics*, 101(5):1373–1385, <https://doi.org/10.1093/ajae/aaz045>

A. Magrath, A. Champetier, S. Krishnan, V. Boreux, J. Ghazoul, (2019) “Uncertainties in the value and opportunity costs of pollination services” *Journal of Applied Ecology*, 56.7 (2019): 1549-1559.

H. Lee, D.A. Sumner, A. Champetier (2018), “Pollination Markets and the Coupled Futures of Almonds and Honey Bees: Simulating Impacts of Shifts in Demands and Costs”, *American Journal of Agricultural Economics*, aay063, <https://doi.org/10.1093/ajae/aay063>

A. Champetier, D.A. Sumner, and J.E. Wilen (2015) “The Bioeconomics of Honey Bees and Pollination”, *Environmental and Resource Economics* 60(1):143-164.

**Other papers, book chapters, and reports**

A. Champetier and A. Smith (2023) “Research animal use in Norway from 2018 to 2021: A preliminary report with emphasis on severity and purpose” 26pages ISBN:978-82-693192-0-0.  
[https://norecopa.no/media/kepbfpxk/report\\_animal\\_use\\_2018-2021.pdf](https://norecopa.no/media/kepbfpxk/report_animal_use_2018-2021.pdf)

D.A. Sumner, D Meyer, S. Somerville, A. Champetier et al. (2020) “Small Dairy Climate Change Research: An economic evaluation of strategies for methane emission reduction effectiveness and appropriateness in small and large California dairies” Report prepared for the California Department of Food & Agriculture  
[https://www.cdfa.ca.gov/oefi/research/docs/CDFA\\_SmallDairyResearch\\_FINAL\\_Report.pdf](https://www.cdfa.ca.gov/oefi/research/docs/CDFA_SmallDairyResearch_FINAL_Report.pdf)

A. Champetier. Podcast review for the *American Journal of Agricultural Economics* (2017) *National Public Radio. Planet Money [podcast]. Episode 756: The Bees Go to California. February 2017.*  
<https://doi.org/10.1093/ajae/aax062>

H. Lee, A. Champetier, D. Sumner, and J.K. Bond (2017) “Bee-economics Revisited: a decade of new data is consistent with the market hypothesis” ARE Update, Vol. 20, No. 5 May/June 2017. Giannini Foundation of Agricultural Economics, University of California.

[https://s.giannini.ucop.edu/uploads/giannini\\_public/52/4a/524a5514-9246-42d8-8475-315456076a2e/v20n5\\_1.pdf](https://s.giannini.ucop.edu/uploads/giannini_public/52/4a/524a5514-9246-42d8-8475-315456076a2e/v20n5_1.pdf)

A. Champetier, D. Sumner, T.P. Tomich (2016) “Underlying drivers of nitrogen flows in California” in *The California Nitrogen Assessment: Challenges and Solutions for People, Agriculture, and the Environment*. Contributing Authors: S Brodt, M Coley, VR Haden, M Kreith, JT Rosen-Molina, and K Thomas, <http://asi.ucdavis.edu/programs/sarep/research-initiatives/are/nutrient-mgmt/california-nitrogen-assessment>

A. Champetier and D.A. Sumner (2007) ”Agricultural Conservation and the 2007 Farm Bill: A California Perspective” Agricultural Issues Center Farm Bill Brief, [http://aic.ucdavis.edu/research/farbill07/AIC\\_FBIB\\_6Conservation.pdf](http://aic.ucdavis.edu/research/farbill07/AIC_FBIB_6Conservation.pdf)

D.A. Sumner and A. Champetier (2007) ”Extrapolating Production Costs for Agricultural Commodities” Report for the United States Department of Agriculture Risk Management Agency. <http://www.aic.ucdavis.edu/publications/Production-Cost-Extrapolation.pdf>

### **Fellowships and grants**

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|-----------|---|
| 2013-2016 | European Cooperation in Science and Technology (COST) Application with Pierre Mérel for “Economic impact evaluation of integrated ragweed management”.              |
| 2011-2012 | Giannini Foundation Research Minigrant with Daniel Sumner for:” Estimating the Demand for Pollination Services in Almond Production”.                               |
| 2007-2008 | Giannini Foundation Research Minigrant with James Wilen for:” Economics of Environmental Services in California Agriculture: A Focus on Spatial-Dynamic Processes”. |
| 2004-2008 | Four-year Non-resident tuition Fellowship, UC-Davis.  |

### **Journal Referee**

American Journal of Agricultural Economics, Scientific Research and Essays, Environmental and Resource Economics, PLoS ONE, Journal of Apicultural Research, Journal of Economic Entomology, Resources, Asian Journal of Agriculture, Ecological Economics, Journal of Applied Ecology, Land Economics, Sustainability.

### **Selected presentations and posters**

„An Economic Evaluation of Strategies for Methane Emission Reduction Effectiveness and Appropriateness in Smaller and Larger California Dairies“ Schweizerische Gesellschaft für Agrarwirtschaft und Agrarsoziologie SGA, March 2021.

“The economics of pollination and honey in the U.S.: The roles of almonds, bee losses, and trade“ Lunch seminar in Energy, Environmental, Resource and Development Economics, Centre for Energy Policy and Economics, ETH Zurich, November 2019.

“Economics of the supply functions for pollination and honey: Marginal costs and supply elasticity”, Seminar of the Agricultural and Resource Economics Department, University of Nebraska, Lincoln. April 2019.

- “The Bioeconomics of Pollination” Science on my plate. Opening event of the Zurich Week at the Expo Milano 2015.
- “Pollination Districts in the Western Ghats: Coffee Production, Conservation, and Other Benefits.” USYS Department conference, ETH Zurich, Davos, June 2015.
- “Economics of emerging technologies in crop production.” Zurich–Basel Plant Science Center Summer School 2014 (ETH-Zurich), Green Revolution Reloaded: Emerging Technologies for Sustainable Crop Production.
- “The Bioeconomics of Beekeeping.” Seminar at the Department of Food, Agricultural and Resource Economics, University of Guelph, February 2012.
- “The Bioeconomics of Beekeeping.” Seminar at the Department of Food, Agricultural and Resource Economics, University of Guelph, February 2012.
- “The Foraging Economics of Honey Bees in Almonds.” Agricultural & Applied Economics Association Annual Meeting, Pittsburg PA. July 2011. (selected paper)
- “Measuring the Importance of Pollination Externalities In Agriculture” Agricultural & Applied Economics Association Annual Meeting, Pittsburg PA. July 2011. (poster presentation)
- “The Dynamics of Pollination Markets.” Agricultural & Applied Economics Association Annual Meeting, Denver CO. July 2010. (selected paper)
- “A Spatial Look at Negative Externalities in Agricultural Landscapes: Seedless Mandarins and Honey Bee Pollination in California.” Agricultural & Applied Economics Association Annual Meeting, Orlando Fl. July 2008. (selected paper)