

AAEA

Pre-Conference Workshop



Economics of Pollinator Health

AGENDA

Saturday, July 26th
1:00 p.m. - 5:00 p.m.

Hyatt Regency
Minneapolis, MN



Saturday, July 26

1:00 - 1:10

Welcome and Introduction

Mary Bohman, Administrator, USDA-Economic Research Service

1:10 - 1:25

Opening Remarks

Zac Browning, Owner, Browning's Honey and 4th Generation Beekeeper

1:25 - 2:50

Panel Session I: Overview of Apiary Industry and Bee Health Challenges

Moderator: Rachael Goodhue, Professor, Department of Agricultural and Resource Economics, University of California-Davis

1:25 - 1:50

An Economic Valuation of the Honey Bee in the U.S.

Jen Bond (presenter), Kristy Plattner, Craig Osteen, and Mark Jekanowski; USDA-Economic Research Service

1:50 - 2:15

Linking Environmental Factors and Honey Bee Disease

Kathy Baylis (presenter) and Jai Holt; University of Illinois, Urbana-Champaign

2:15 - 2:40

Welfare Impacts of Pollinator Health Challenges

Walter Thurman (presenter), North Carolina State University and Randal Rucker, Montana State University

2:40 - 2:50

Open Q&A

2:50 - 3:10

Coffee Break

3:10 - 4:35

Panel Session II: Pieces of the Pollinator Health Puzzle

Moderator: Ken Foster, Professor and Department Head, Department of Agricultural Economics, Purdue University

3:10 - 3:35

Evaluating the Impact of Pesticide Regulation on Pollinator Health

Elizabeth Hill (presenter) with T. J Wyatt; Environmental Protection Agency

3:35 - 4:00

Land Management Policy Impacts on Pollinator Health

Rich Iovanna, USDA-Farm Services Agency

4:00 - 4:25

Apiary Management Practices and Pollinator Health

Marla Spivak, University of Minnesota

4:25 - 4:35

Open Q&A

4:35 - 5:00

Closing Comments

Robert Curtis, Associate Director of Agricultural Affairs, The Almond Board of California

Biographies of Speakers

Kathy Baylis, University of Illinois

Kathy Baylis is an assistant professor in Agricultural and Consumer Economics at the University of Illinois. She joined the department after several years as an assistant professor at the University of British Columbia, where she is still an adjunct. She earned her Ph.D. from the University of California at Berkeley in 2003, where she specialized in agriculture, trade and conservation issues. Kathy has worked in agricultural policy in both Canada and the United States. In 2001/02, she was the staff economist in charge of agriculture for the Council of Economic Advisors in the White House, and in the mid-1990s, she worked as Executive Secretary with the National Farmers Union in Canada. She has coauthored a textbook on Canada-U.S. agricultural policy and published a number of journal articles on agricultural trade and environmental policy, including several on honey bee health. Since 2007, she has been involved in several multidisciplinary projects on bee health in Canada and the United States, and is currently a project director with the Bee Informed Partnership.

Mary Bohman, USDA-Economic Research Service

Mary Bohman is the administrator of the Economic Research Service. She had recently served as the director of the agency's Resource and Rural Economics Division. Mary joined ERS in 1997 and has served as the deputy director for research in ERS's Market and Trade Economics Division (MTED) and as chief of MTED's Europe, Africa, and Middle East Branch. Her work in the public sector also includes details to the White House Office of Science and Technology Policy and to USDA's Under Secretary for Farm and Foreign Agricultural Services. From 1990 to 1997 she was on the Agricultural Sciences faculty at the University of British Columbia. Mary received her Ph.D. from the Department of Agricultural Economics, University of California-Davis and her B.S. from the School of Foreign Service, Georgetown University. Mary is a member of the Agriculture & Applied Economics Association, Association of Environmental and Resource Economists, Wye Group on Statistics on Rural Development and Agricultural Household Income, and the International Association of Agricultural Economists.

Jennifer Bond, USDA-Economic Research Service

Jennifer Bond joined the Crops Branch of the Economic Research Service (ERS) in Washington, D.C. in 2012. In this role, she creates research and monthly analysis related to several feed grains and specialty crops. Jennifer helped to organize the ERS Pollinator Health Team in 2013 and currently serves as Chair. The Pollinator Health Team includes representatives from each ERS division who collaborate with members of other federal agencies and academic institutions to address a variety of honey bee health concerns, including the effects of land management policies on pollinator health, the consumer welfare consequences of fluctuations in pollinator availability and costs, the value of pollinator-linked ecosystem services, and appropriate beekeeper risk management tools. Prior to joining ERS, Jennifer was a faculty member in the Agricultural and Resource Economics Department at Colorado State University (2005-2012). Jennifer received her master's degree (2003) and Ph.D. (2008) from the University of California-Davis.

Zac Browning, Beekeeper

Zac Browning is a fourth-generation commercial beekeeper from Jamestown, North Dakota. His business is engaged in honey production and crop pollination in North Dakota, Idaho, Washington, and California. Zac is a past president and current legislative committee member of the American Beekeeping Federation. He also serves on the EPA's Pesticide Program Dialogue Committee Pollinator Protection Workgroup and was recently the North American beekeeper representative at Society of Environmental Toxicology and Chemistry's Pellston Global Pollinator Toxicology Workshop. Zac actively contributes to pollinator research and is a current board member of the National Honey Board and Project Apis Melfera (PAM) and serves on their respective research committees.

Biographies of Speakers

Bob Curtis, Almond Board of California

Bob Curtis is the Associate Director of Agricultural Affairs for the Almond Board of California, where he administers their production research program. The Almond Board of California funds research in horticulture; entomology, plant pathology and nematology, aflatoxin and almond quality field studies; integrated pest management; and pollination and honey bee health issues. He works to assure field implementation of research findings and that research addresses both production and production-related issues. Hence he is involved in advancing sustainable almond growing practices and in technology transfer. Bob interacts closely with the University of California (UC) and other universities; the U.S. Department of Agriculture; UC Cooperative Extension; ag and ag-related organizations; and state and federal agencies. Bob rejoined the Almond Board in 2006, where he began his career 37 years ago. He has also worked for the California Strawberry Advisory Board and Campbell Soup Company in technical and research program administration and implementation. Bob received his masters in agricultural entomology from UC-Riverside and a bachelor's in zoology from UC-Los Angeles.

Ken Foster, Purdue University

Dr. Ken Foster is a professor and head of the Department of Agricultural Economics at Purdue University. He was raised on a farm in Wheatfield, Indiana. His educational background includes a Bachelor of Science degree from Purdue, Master of Science degree from the University of Georgia, and Doctor of Philosophy degree from the University of California. Foster's research interests are in the fields of production economics and marketing with special emphasis on livestock and meat. His work has included a dynamic analysis of investment and supply in the U.S. beef cattle industry, the measurement of technical change in agriculture, the management of livestock waste, demand for heterogeneous products, and the use of contracts in agricultural production. Foster's current research is focused on the impact of direct payments to farmers on both the aggregate production of crops and livestock in the U.S. as well as the structure of U.S. farms. He recently completed a three-year term as Chair of the National Association of Agricultural Economics Administrators. Dr. Foster served as a Peace Corps Volunteer from 1981 to 1984 and currently manages a fourth-generation agricultural business that produces honey and provides crop pollination.

Rachael Goodhue, University of California-Davis

Rachel E. Goodhue is a professor in the Department of Agricultural and Resource Economics at the University of California-Davis. Her research interests include agricultural and agro-environmental policy, agricultural marketing and contracting, pesticide use and regulation, and property rights and natural resource management. She earned a B.A. in Economics from Swarthmore College and a M.S. and Ph.D. in Agricultural and Resource Economics from the University of California-Berkeley.

Elizabeth Hill, Environmental Protection Agency

Elizabeth Hill is an economist in the Biological and Economic Analysis Division at EPA Office of Pesticide Programs. Her work focuses primarily on analyzing the impacts from EPA pesticide regulations and mitigation measures on growers and beekeepers, which is then weighed against the human health and environmental risks of that particular pesticide in risk-benefit analyses. She holds a B.S. in both Applied Economics and Marketing from the University of North Carolina at Greensboro and an M.S. in Environmental Economics and a Graduate Certificate in Conservation Ecology and Sustainable Development from the University of Georgia. Elizabeth previously worked for University of Maryland Extension on honey bee educational programming and currently manages hives at several locations in Washington, DC.

Biographies of Speakers

Jai Holt, University of Illinois

Jai Holt is an applied economist working with Professor Kathy Baylis for the Bee Informed Partnership, an interdisciplinary consortium of researchers whose aim is to reduce overwintering bee colony losses through the collection and analysis of real world beekeeping data. Jai's current research explores how landscape factors, including pesticide exposure, forage availability and weather, affect honey bee health. In addition, Jai is researching trends in honey bee colony rentals for the Almond Board of California and has helped conduct the Bee Informed Partnership's Tier 6: Pollinator Availability surveys during spring of 2013 and 2014. Jai holds a B.S. in Business Economics from University of Louisville and expects to receive her M.S. in Applied Economics from the University of Illinois in August, 2014.

Rich Iovanna, USDA, Farm Service Agency

Rich Iovanna is an agricultural economist for the USDA Farm Service Agency. After several years of assessing the costs and benefits of clean water regulation for the Environmental Protection Agency, Rich now works primarily on making the Conservation Reserve Program more cost effective and on quantifying the benefits that it generates.

Mark Jekanowski, USDA, Economic Research Service

Mark Jekanowski is the chief of the Crops Branch in the Market and Trade Economics Division where he oversees research and market outlook activities for grains, oilseeds, cotton, sugar and specialty crops. Prior to his role as Branch Chief, Mark was a Senior Vice President and Head of the Washington, DC office of Informa Economics. At Informa, he led research and consulting projects for U.S. and multinational agribusiness firms, commodity organizations, and government agencies; focusing heavily on agriculture policy and regulatory analysis as well as agricultural market outlook. He was also responsible for organizing Informa's Policy Roundtable Seminar Series and its annual Food and Agriculture Policy Conference. Mark was raised on a full-time, family-owned tobacco and vegetable farm in western Massachusetts. He received his bachelor's degree in resource economics from the University of Massachusetts at Amherst and his master's and doctorate degrees in agricultural economics from Purdue University.

Craig Osteen, USDA-Economic Research Service

Craig Osteen is an Agricultural economist in the Structure, Technology and Productivity Branch of the Resource and Rural Economics Division. Craig has worked with ERS since 1979 on such topics as invasive species management, pest control and pesticide regulation, input use surveys, and soil erosion control issues.

Kristy Plattner, USDA-Economic Research Service

Kristy is an agricultural economist in the Crops Branch of the Market and Trade Economics Division, where she is the sole citrus and tree nut market analyst. The Fruit and Tree Nut Outlook newsletter is her main outlet for updating market situations on tree nut and citrus crops in the United States. She holds a M.S. in Environmental Economics from the University of Georgia, where she researched organic blueberry production methods. Her work covering tree nuts, particularly almonds, has led to her involvement in ERS's Bee Health Team, Jennifer Bond and Craig Osteen.

Randal R. Rucker, Montana State University

Randal Rucker is a research fellow at the Independent Institute, professor of Agricultural Economics and Economics at Montana State University, and author of *Plowshares & Pork Barrels: The Political Economy of Agriculture* (with Ernest C. Pasour, Jr.). He received his Ph.D. in economics from the University of Washington, and he has been associate professor of Economics and Business at North Carolina State University, Economist at the U.S. Department of the Interior, and research fellow for the Sloan Foundation. Professor Rucker is the author of numerous technical studies on natural resource and environmental issues.

Biographies of Speakers

Marla Spivak, University of Minnesota

Marla Spivak is a MacArthur Fellow and Distinguished McKnight Professor in the Department of Entomology at the University of Minnesota, where she is an Extension entomologist. Marla's interest in bees began when she worked for a commercial beekeeper from New Mexico in 1975. She later completed her B.A. in Biology from Humboldt State University in northern California, and her Ph.D. from the University of Kansas, under Dr. Orley "Chip" Taylor, in 1989. She spent two years in Costa Rica conducting her thesis research on the identification and ecology of Africanized and European honey bees. From 1989 to 1992 she was a post-doctoral researcher at the Center for Insect Science at the University of Arizona. She began as assistant professor at the University of Minnesota in 1993. Influenced by Martha Gilliam and Steve Taber from the USDA Bee lab in Tucson, she became interested in hygienic behavior of honey bees. This interest has expanded into studies of "social immunity", including the benefits of propolis to the immune system of honey bees, and to the health and diversity of all bee pollinators.

Walter Thurman, North Carolina State University

Walter Thurman is a William Neal Reynolds Distinguished Professor at North Carolina State University and a senior fellow at the Property and Environment Research Center. He has served as an editor of the *American Journal of Agricultural Economics* and is a fellow of the Agricultural and Applied Economics Association. Thurman studies agricultural and natural resource markets and their regulation. His published work includes empirical studies of quota schemes in the United States for peanuts and tobacco, the drivers of land trust growth, futures price responses to market news, and compensation schemes in agricultural industries. He currently is studying the effects of tax incentives on land trusts and markets for honey bee pollination services. Thurman earned a B.A. in Environmental Studies from Utah State University, a Master's degree in Economics from Montana State University, and a Ph.D. in Economics from the University of Chicago.

T. J. Wyatt, Environmental Protection Agency

T. J. Wyatt received a Ph.D. from the Department of Agricultural and Resource Economics at the University of California at Davis. He is currently the senior economist in the Biological and Economic Analysis Division at the Environmental Protection Agency's Office of Pesticide Programs, US EPA. The majority of his work centers on assessing the impacts of pesticide policy on agriculture. A former Peace Corps volunteer, he worked in West Africa for the International Crop Research Center for the Semi-Arid Tropics, where his work focused on assessing the impacts of agricultural research, before joining EPA.

Pollinator Movements and Crops in the U.S.



