## **Prof. James Lowenberg-DeBoer**

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## **KEY QUALIFICATIONS:**

Prof. Lowenberg-DeBoer holds the Elizabeth Creak Chair in Agri-Tech Applied Economics at Harper Adams University, He also Emeritus Professor of Excellence in International Entrepreneurship at Purdue University, Past President of the International Society for Precision Agriculture (ISPA) and from 2016-2022 was co-editor of the refereed journal Precision Agriculture published by Springer. He has over 30 years of worldwide experience in agricultural research, teaching, outreach and leadership. His research focuses on the economics of agricultural technology. He has published 96 articles in refereed journals, two books and chapters in seven other books. From 2004-2015 he was the Associate Dean and Director of the Purdue International Programs in Agriculture (IPIA). From 2007-2015 he led the Purdue Improved Cowpea Storage (PICS) project funded by the Bill & Melinda Gates Foundation. In 2012 he was made a Chevalier of the National Order by the government of Burkina Faso for his work improving food security in the country in PICS. From 2000-2006 he was director of the Purdue Site-Specific management center. From 1997 to 2007 he was West Africa facilitator for the USAID Bean/Cowpea Collaborative Research Support Program (CRSP) working to build multidisciplinary teams and supervising CRSP social science research and outreach in that region. From 1992 to 1994 he was campus coordinator for the Agricultural Research and Training Support (ARTS) project in Burkina Faso. From 1988 to 1992 he served as economist and team leader of a USAID-funded institution building project in Niger. His work has taken him to Afghanistan, Angola, Argentina, Australia, Belgium, Benin, Brazil, Bulgaria, Burkina Faso, Cambodia, Cameroon, Canada, Chad, Chile, Colombia, Peoples Rep. of China, Colombia, Costa Rica, Côte d'Ivoire, Dominican Republic, Egypt, Ethiopia, France, Germany, Ghana, Guinea, Holland, Hungary, India, Italy, Israel, Jordan, Kenya, Lebanon, Lesotho, Liberia, Mali, Malawi, Mauritania, Morocco, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Palestine, Philippines, Qatar, Republic of Georgia, Senegal, Sierra Leone, South Africa, South Sudan, Spain, Swaziland, Sweden, Syria, Tajikistan, Tanzania, Togo, Uganda, Ukraine, and Zimbabwe. He brings to his research, teaching, outreach and leadership a perspective gained through private sector experience as a farmer and journalist.

## **EDUCATION:**

Ph.D. Agricultural Economics, Iowa State University, Ames, Iowa, 1985M.S. Agricultural Economics, Cornell University, Ithaca, New York, 1982B.A. Journalism and Comparative Literature, University of Iowa, Iowa City, Iowa, 1979

## **LIST OF PUBLICATIONS** (Selected recent refereed articles – 96 refereed articles total)

- Al Amin, A., J. Lowenberg-DeBoer, K. Franklin and K. Behrendt (2023). Economics of Field Size and Shape for Autonomous Crop Machines. *Precision Agriculture*. https://doi.org/10.1007/s11119-023-10016-w
- Maritan, E., Lowenberg-DeBoer, J., Behrendt, K., Franklin, K. 2023. Economically optimal farmer supervision of crop robots, *Smart Agricultural Technology*, 100110, https://doi.org/10.1016/j.atech.2022.100110.
- Lopez Barrera, E., Peña-Lévano, L., Lowenberg-DeBoer, J., Fontanilla-Díaz, C. and Mosquera-Montoya, M. (2022), "Sustainable businesses development in post-conflict zones: a case in rural Colombia", *Journal of Agribusiness in Developing and Emerging Economies*, Vol. ahead-of-print No. ahead-of-print. <u>https://doi.org/10.1108/JADEE-11-2021-0299</u>
- Huang, I., James, K., Thamthanakoon, N., Pinitjitsamut, P., Rattanamanee, N., Pinitjitsamut, M., Yamklin, M., LowenbergDeBoer, J. 2022. Economic outcomes of rubber-based agroforestry systems: a systematic review and narrative synthesis. *Agroforestry Systems*. https://doi.org/10.1007/s10457-022-00734-x

Lowenberg-DeBoer, J., Behrendt, K., Franklin, K. and R. Godwin. 2021. Economics of Autonomous

Equipment for Arable Farms. *Precision Agriculture*. doi.org/10.1007/s11119-021-09822-x

- Lowenberg-DeBoer, James, Karl Behrendt, Melf-Hinrich Ehlers, Carl Dillon, Andreas Gabriel, Iona Huang, Ian Kumwenda, Tyler Mark, Andreas Meyer-Aurich, Gabor Milics, Kehinde Oluseyi Olgunju, Søren Marcus Pedersen, Jordan Shockley and David Rose. 2021. Lessons to be Learned in Adoption of Autonomous Equipment for Field Crops. *Applied Economics Perspectives and Policy*, DOI: 10.1002/aepp.13177.
- Shockley, Jordan, Carl Dillon, James Lowenberg-DeBoer and Tyler Mark (2021). How Will Regulation Influence Commercial Viability of Autonomous Equipment in U.S. Production Agriculture? *Applied Economics Perspectives and Policy*. DOI: 10.1002/aepp.13178
- Fontanilla-Diaz, C., Preckel, P., Lowenberg-DeBoer, J., Sanders, J., and Peña-Lévano, L. 2021. Identifying profitable activities on the frontier: The Altillanura of Colombia. *Agricultural Systems*. <u>https://doi.org/10.1016/j.agsy.2021.103199</u>.
- Griffin, Terry, Glenn Fitzgerald, James Lowenberg-DeBoer, Edward Barnes and Robert Roth, "Modelling Local and Global Spatial Correlation in Field Scale Experiments," *Agronomy Journal* published on-line 22 April 2020. <u>https://doi.org/10.1002/agj2.20266</u>
- Griffin, Terry and James Lowenberg-DeBoer, "Modeling local terrain attributes in landscape-scale site specific data using spatially lagged independent variables via cross regression," *Precision Agriculture* (2019). doi.org/10.1007/s11119-019-09702-5
- Lowenberg-DeBoer, James, Iona Yuelu Huang, Vasileios Grigoriadis, and Simon Blackmore, "Economics of Robots and Automation in Field Crop Production," *Precision Agriculture* (2019), p. 1-22. doi.org/10.1007/s11119-019-09667-5.
- Lowenberg-DeBoer, James, and Bruce Erickson, "Setting the Record Straight on Precision Agriculture Adoption," *Agronomy Journal* 111 (2019), p. 1552-1569. doi:10.2134/agronj2018.12.0779.
- Griffin, Terry and J. Lowenberg-DeBoer, "Impact of Automated Guidance for Mechanical Control of Herbicide Resistant Weeds in Corn," *Journal of Applied Farm Economics* 1 (2) (2017), p. 62-174.
- Lowenberg-DeBoer, J. The Precision Agriculture Revolution: Making the Modern Farmer. *Foreign Affairs* 94(3) (2015):105-112.
- Griffin, Terry, Mark Tyler, Craig Dobbins and J. Lowenberg-DeBoer, "Estimating Whole Farm Costs of Conducting On-Farm Research on Midwestern US Corn and Soybean Farms: A Linear Programing Approach," *International Journal of Agricultural Management*, 4:1 (2014), p. 21-26.
- Delbecq, Benoit A., Jason P. Brown, Raymond J. G. M. Florax, Eileen J. Kladivko, Adela Nistor and J. Lowenberg-DeBoer, "The Impact of Drainage Water Management Technology on Corn Yields," *Agronomy Journal*, 104(4) (2012), p. 1100-1109.
- Griffin, Terry, Craig Dobbins, Raymond Florax, J. Lowenberg-DeBoer, and Tony Vyn, "Spatial Analysis of Precision Agriculture Data: Role for Extension." *NACAA Journal*, 3(1) (2010).
- Lowenberg-DeBoer, James and Bruce Erickson, "The Search for the Killer App: Precision Farming in Africa." *Georgetown Journal of International Affairs*, 11(2) (2010), p. 107-116.
- Maine, N., J. Lowenberg-DeBoer, W.T. Nell, and Z.G. Alemu, "Impact of Variable-Rate Application of Nitrogen on Yield and Profit: A Case Study from South Africa." *Precision Agriculture*, 11(5) (2010), p. 448-463.
- Griffin, Terry W., Craig L. Dobbins, Tony J. Vyn, Raymond J.G.M. Florax and J.M. Lowenberg-DeBoer, "Spatial Analysis of Yield Monitor Data: Case Studies of On-Farm Trials and Farm Management Decision Making." *Precision Agriculture*, 9 (2008), p. 269-283.
- Tenkorang, Frank, and J. Lowenberg-DeBoer, "On-Farm Profitability of Remote Sensing in Agriculture." *Journal of Terrestrial Observation*, 1(1) (2008), p. 50-59.
- Bullock, David, and J. Lowenberg-DeBoer, "Using Spatial Analysis to Study the Values of Variable Rate Technology and Information." *Journal of Agricultural Economics*, 58(3) (2007), p. 517-535.
- Lambert, D.M., J. Lowenberg-DeBoer, and G. Malzer, "Managing Phosphorous Soil Dynamics over Space and Time." *Agricultural Economics*, 37 (2007), p. 43-53.
- Urcola, Hernan, J. Lowenberg-DeBoer, "A Stochastic Dominance Method for Incorporating Yield Monitor Data into the Hybrid and Variety Decisions of Argentinean Farmers." *Computers and Electronics in Agriculture*, 58(1) (August 2007), p. 4-12.
- Maine, N, W.T. Nell, J. Lowenberg-DeBoer, and Z.G. Alemu, "Economic Analysis of Phosphorus Application Under Variable and Single-Rate Applications in the Bothaville District." *Agrekon*, 46(4) (Dec. 2007), p. 532-547.