

Prof. James (Jess) 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 and is co-editor of the journal *Precision Agriculture*. He has over 30 years of worldwide experience in agricultural research, teaching, outreach. His research focuses on the economics of agricultural technology, especially precision agriculture and agricultural robotics. He has published 84 articles in refereed journals, two books and chapters in six other books. He is a pioneer in the use of spatial regression in analysis of crop sensor data with published work in this area from the U.S., Argentina and South Africa. He was director of the Site Specific Management Center (SSMC) at Purdue University from 2000 to 2006 with research and extension activities focused on practical and profitable applications of precision agriculture technology. From 2004 to 2015 he served as the Associate Dean and Director of International Programs in Agriculture (IPIA) at Purdue University, coordinating all international programs for the Purdue College of Agriculture. From 1985 to 2017 he rose through the faculty ranks at Purdue University becoming Professor of Excellence in International Entrepreneurship in 2015. His work has taken him to over 60 countries worldwide. He is the editor and co-author of the “Precision Farming Profitability” textbook. Lowenberg-DeBoer’s research and extension work is founded in hands-on experience in agriculture. He grew up on a corn, soybean and cattle farm in Iowa. He ran his own farming operation in Iowa in the 1970s producing mainly lamb, wool, alfalfa and other forages. Since 1993 he has owned and managed 200 hectares of Iowa corn and soybean land.

EDUCATION:

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

SELECTED PRECISION AGRICULTURE PUBLICATIONS

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 Programming 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. Kladvko, 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 Journal*, 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.
- Lambert, Dayton, J. Lowenberg-DeBoer and Gary Malzer, "Economic Analysis of Spatial-Temporal Patterns in Corn and Soybean Response to Nitrogen and Phosphorous." *Agronomy Journal*, 98 (2006), p.43-54.
- Fountas, S., D.R. Ess, C.G. Sorensen, S.E. Hawkins, H.H. Pedersen, B.S. Blackmore and J. Lowenberg-DeBoer, "The Current Status of Precision Agriculture in Denmark and Indiana, USA." *Precision Agriculture*, 6 (2005), p. 121-141.
- Griffin, Terry, and J. Lowenberg-DeBoer, "Worldwide Adoption and Profitability of Precision Agriculture: Implications for Brazil." *Revista de Politica Agricola*, 14(4) (2005), p. 20-38.
- Adamchuk, Viacheslav, Mark Morgan and J. Lowenberg-DeBoer, "A Model for Agro-Economic Analysis of Soil pH Mapping." *Precision Agriculture*, 5 (2004), p. 111-129.
- Anselin, L., R. Bongiovanni and J. Lowenberg-DeBoer, "A Spatial Econometric Approach to the Economics of Site-Specific Nitrogen Management in Corn Production." *American Journal of Agricultural Economics*, 86 (2004), p. 675-687.
- Bongiovanni, Rodolfo, and J. Lowenberg-DeBoer, "Precision Agriculture and Sustainability." *Precision Agriculture*, 5 (2004), p. 359-387.
- Lambert, D., J. Lowenberg-DeBoer and R. Bongiovanni, "A Comparison of Four Spatial Regression Models for Yield Monitor Data: A Case Study from Argentina." *Precision Agriculture*, 5 (2004), p. 579-600.
- Bullock, David, J. Lowenberg-DeBoer and Scott Swinton, "Adding Value to Spatially Managed Inputs by Understanding Site-Specific Yield Response." *Agricultural Economics*, 27 (2002) p. 233-245.
- Bongiovanni, Rodolfo, and J. Lowenberg-DeBoer, "Economics of Variable Rate Lime in Indiana." *Precision Agriculture*, 2(1) (2000), p. 55-70.
- Lowenberg-DeBoer, J., and K. Erickson, eds. *Precision Farming Profitability*. West Lafayette, IN: SSM3, Agricultural Research Programs (2000).
- Lowenberg-DeBoer, J. and Anthony Aghib, "Average Returns and Risk Characteristics of Site-Specific P & K Management: Eastern Corn Belt On-Farm Trial Results," *Journal of Production Agriculture* 12 (1999), p. 276-282.
- Lowenberg-DeBoer, J. "Adoption Patterns for Precision Agriculture." In *Agricultural Machine Systems*, SP-1383. Warrendale, PA: Society of Automotive Engineers, (1998).
- Swinton, S.M. and J. Lowenberg-DeBoer, "Evaluating the Profitability of Site-Specific Farming." *Journal of Production Agriculture*, 11 (1998), p. 439-446.