

CURRICULUM VITAE
PHILIP GORDON PARDEY

CONTACT DETAILS

University of Minnesota
Department of Applied Economics
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UNIVERSITY DEGREES

PhD University of Minnesota, 1986 (Major in agricultural economics and minor in economics)
M.Agr.Sc. University of Adelaide, 1979 (Major in economics)
B.Econ. University of Adelaide, 1979
B.Agr.Sc. University of Adelaide, 1975

WORK EXPERIENCE

2016-present co-Director, G.E.M.STM/IAA (International *AgroInformatics* Alliance) initiative, University of Minnesota

2002-present Professor, Department of Applied Economics, University of Minnesota (since 2002)
Director, Global Research Strategy for College of Food, Agricultural and Natural Resource Sciences and Minnesota Agricultural Experiment Station (since 2014).
Director, International Science and Technology Practice and Policy (InSTePP) center, University of Minnesota (since 2003)
Adjunct Professor, Department of Economics, University of Adelaide (since 2011)

2017-2020 Extraordinary Professor, Department of Agricultural Economics, Stellenbosch University, South Africa

2012-2016 Extraordinary Professor, Department of Agricultural Economics, Extension and Rural Development, University of Pretoria, South Africa

2012-2015 Visiting Scientist, Commonwealth Scientific and Industrial Research Organisation, Canberra, Australia

1994-2002 International Food Policy Research Institute (IFPRI) Washington D.C.: Senior Research Fellow (Leader, IFPRI Science and Technology Policy Program), January 1999–January 2002; Research Fellow, October 1994–December 1998

1986 (March-May) Visiting Assistant Professor, Virginia Polytechnic Institute and State University, Department of Agricultural Economics, Blacksburg, Virginia

1984-2001 University of Minnesota: Adjunct Professor, June 1997–December 2001; Adjunct Associate Professor, July 1994–May 1997; Adjunct Assistant Professor, July 1990–June 1994; Research Associate, January 1985–June 1990

1984-1994 International Service for National Agricultural Research (ISNAR) The Hague: Senior Research Officer, January 1990–September 1994; Research Officer, June 1986–December 1989; Research Fellow, January 1985–May 1986; Consultant, August 1984–December 1984

1979-1984	Graduate Research Assistant, University of Minnesota, Department of Agricultural and Applied Economics, St. Paul, Minnesota
1978-1979	Research Assistant, University of Adelaide, Department of Economics, Adelaide, South Australia
1976-1978	Part-time tutor, University of Adelaide, Department of Economics, Adelaide, South Australia

PROFESSIONAL MEMBERSHIPS

Agricultural and Applied Economics Association
 Australian Agricultural and Resource Economics Society
 American Economics Association
 International Association of Agricultural Economists

AWARDS AND PROFESSIONAL RECOGNITION

- SJJ de Swardt award for best article in the journal *Agrekon*, (with Jan Greyling), Agricultural Economics Association of South Africa (awarded 2019)
- Outstanding American Journal of Agricultural Economics article, honorable mention 2018 (with Matthew Andersen, Julian Alston and Aaron Smith), Agricultural and Applied Economics Association (awarded 2019).
- SJJ de Swardt award for best article in the journal *Agrekon*, second prize (with Frikkie Liebenberg, Jason Beddow and Johann Kirsten), Agricultural Economics Association of South Africa (awarded 2016)
- Quality of Research Discovery award (with Jason Beddow), Australian Agricultural and Resource Economics Society (awarded 2016)
- Fellow, American Association for the Advancement of Science (elected 2015)
- Distinguished Life Member, International Association of Agricultural Economists (elected 2015)
- Publication of Enduring Quality award (with Julian Alston and George Norton), Agricultural and Applied Economics Association (awarded 2015)
- Outstanding Choices Article award (with Jason Beddow and Steven Buccola), Agricultural and Applied Economics Association (awarded 2015)
- Quality of Research Discovery award (with Terry Hurley and Xudong Rao), Australian Agricultural and Resource Economics Society (awarded 2015)
- Best *Australian Journal of Agricultural and Resource Economics* Article award for 2014 (with Jason Beddow, Terry Hurley, Vernon Eidman and Timothy Beatty), Australian Agricultural and Resource Economics Society (awarded 2015)
- Siehl Prize for Excellence in Agriculture (awarded May 2012)
- SJJ de Swardt award for best article in the journal *Agrekon* (with Frikkie Liebenberg), Agricultural Economics Association of South Africa (awarded 2011)
- Quality of Research Discovery award (with Julian Alston, Mathew Andersen and Jennifer James), Agricultural and Applied Economics Association (awarded 2011)
- Quality of Communication award Honorable Mention (with Julian Alston and Bruce Babcock), Agricultural and Applied Economics Association (awarded 2011)
- Outstanding Published Research Award (with Julian Alston, Mathew Andersen and Jennifer James), Western Agricultural Economic Association (awarded 2011)
- Quality of Research Discovery award (with Julian Alston, Mathew Andersen and Jennifer James), Australian Agricultural and Resource Economics Society (awarded 2011)
- Quality of Communication award (with Julian Alston and Bruce Babcock), Australian Agricultural and Resource Economics Society (awarded 2011)

- President, Australian Agricultural and Resource Economics Society, 2010
- Fellow, Australian Agricultural and Resource Economics Society (elected 2007)
- Quality of Communication award (with Julian Alston and Roley Piggott), Australian Agricultural and Resource Economics Society (awarded 2007)
- Fellow, Agricultural and Applied Economics Association (elected 2006)
- Quality of Communication award (with C.F. Runge, B. Senauer, and M.W. Rosegrant), American Agricultural Economics Association (awarded 2004)
- Outstanding paper on plant genetic resources (with B. Koo, B.D. Wright, M.E. van Dusen, B. Skovmand, and S. Taba), Crop Science Society of America (awarded 2002)
- Distinguished Policy Contribution (with J Alston), American Agricultural Economics Association (awarded 2001)
- Outstanding Published Research award (with J. Alston, C. Chan-Kang, M. Marra, and TJ Wyatt), Western Agricultural Economics Association, 2000 (awarded 2001)
- Quality of Research Discovery award, honorable mention (with J Alston and G Norton), American Agricultural Economics Association, 1995 (awarded 1996)
- Honorable mention for Quality of Communication (with J. Alston and other authors in the AEI project), American Agricultural Economics Association, 1995 (awarded 1996)
- Outstanding Service award, International Service for National Agricultural Research, The Hague (awarded 1992)
- George Murray overseas travel grant, University of Adelaide (awarded 1979)
- Australian Wool Corporation research studentship (1976-1978)

BOARDS, COMMITTEES AND ADVISORY PANELS

2014-2019	Member, Agricultural and Applied Economics Association, Fellows Selection Committee
2014	Guest editor (with A. Rae) <i>Australian Journal of Agricultural and Resource Economics</i> , October 2014 special issue on Global Food Security
2013-2014	Member, U.S. National Research Council Committee to Review USDA's Agricultural and Food Research Initiative
2009-2012	Member, Editorial Council, <i>Journal of Agricultural and Resource Economics</i>
2005-present	Member, Faculty Editorial Advisory Board for the <i>Minnesota Journal of Law, Science & Technology (MJLST)</i>
2005-2010	Member, American Agricultural Economics Association Centennial Committee and Nominating Committee (Distinguished Policy Award Committee, 2007)
2004-2007	Co-chair, Australian Organizing Committee for the <i>International Agricultural Economics Association</i> triennial meetings, Queensland Australia, August 2006
2003-2017	Member, Editorial Board, <i>Australian Journal of Agricultural and Resource Economics</i>
2002-present	Senior Affiliate, Center for International Economic Studies, University of Adelaide
2002-2005	Member, U.S. National Research Council Standing Committee on Agricultural Biotechnology, Health and the Environment
2000-2002	Member, Federal Council of the Australian Agricultural and Resource Economics Society
1996-2002	Member, Systemwide Genetic Resource Programme of the CGIAR
1997	Guest editor (with J.M. Alston) <i>Australian Journal of Agricultural and Resource Economics</i> , September 1997 issue
1995-2001	Member, American Agricultural Economics Association, Economic Statistics, and Information Resources Committee
1992-2012	Participant in the regional research project NC-208, "Impact Analysis and Decision Strategies for Agricultural Research."

1995-1997	Associate editor, <i>American Journal of Agricultural Economics</i>
1994	Member, internally managed external review panel, CIMMYT economics program, Mexico
1988-present	Affiliate, Center for International Food and Agricultural Policy, University of Minnesota
1986-1991	Member of the technical committee for the USDA interregional research project IR-6, "National Agricultural Research Planning and Analysis"

INTERNATIONAL EXPERIENCE

Led regional projects in Asia, Latin America and the Caribbean, and sub-Saharan Africa, and country projects in Argentina, Australia, Brazil, China, Indonesia, Kenya, Malawi, Niger, South Africa and the United States.

2006-2017: Co-director of the Bill and Melinda Gates Foundation funded project HarvestChoice

2017-ongoing: Co-Director of the GEMS agroinformatics initiative (www.agroinformatics.org)

PUBLICATIONS

1. Books, Monographs and Reports

Pardey, P.G. and V.H Smith. *Waste Not, Want Not—Transactional Politics, Research and Development and the US Farm Bill*. Policy Brief in the series "Agricultural Policy in Disarray, Reforming the Farm Bill." Washington D.C.: American Enterprise Institute, November 2017, pp. 17.

Alston, J.M. and P.G. Pardey. "Transforming Traditional Agriculture Redux." Working Paper No. 260. Abidjan, Côte d'Ivoire: African Development Bank, May 2017, pp. 25.

Pardey, P.G. and J.M. Beddow. *Revitalizing Agricultural Research and Development to Sustain US Competitiveness*. Policy Brief, Philadelphia, PA: Farm Journal Foundation, February 28, 2017, pp. 11.

Pardey, P.G. and J.M. Beddow. *Agricultural Innovation: The United States in a Changing Global Reality*. CCGA Report. Chicago: Chicago Council on Global Affairs, 2013, pp. v + 52.

Pardey, P.G., J.M. Alston and C. Chan-Kang. *Public Food and Agricultural Research in the United States: The Rise and Decline of Public Investments, and Policies for Renewal*. AGree Report. Washington D.C.: AGree, 2013, pp. viii + 46.

Pardey, P.G. and J.M. Alston. *For Want of a Nail: The Case for Increased Agricultural R&D Spending*. Report in the *American Boondoggle: Fixing the 2012 Farm Bill* series. Washington, D.C.: American Enterprise Institute, 2011, pp. 17. Available on line at <http://www.aei.org/paper/economics/fiscal-policy/federal-budget/for-want-of-a-nail-the-case-for-increased-agricultural-rd-spending/>.

Alston, J.M., M.A. Andersen, J.S. James and P.G. Pardey. *Persistence Pays: U.S. Agricultural Productivity Growth and the Benefits from Public R&D Spending*. New York: Springer, 2010, pp. xxx + 502.

Pardey, P.G. and J.M. Alston. *U.S. Agricultural Research in a Global Food Security Setting*. A Report of the CSIS Task Force on Food Security. Washington D.C.: Center for Strategic International Studies, January 2010, pp. 17. Available on line at <http://csis.org/publication/us-agricultural-research-global-food-security-setting>.

Alston, J.M., B.A. Babcock and P.G. Pardey, eds. *The Shifting Patterns of Agricultural Production and Productivity Worldwide*, CARD-MATRIC on-line volume, Ames: Iowa State University, 2010. Available at www.matric.iastate.edu/shifting_patterns.

Pardey, P.G., S. Wood, and R. Herford, eds. *Research Futures: Projecting Agricultural R&D Potentials for Latin America and the Caribbean*, Washington, D.C. and St. Paul: IFPRI, IDB, and InStePP, 2010, pp. xxiv + 242 (English version). Available at www.instepp.umn.edu/publications/newpubs.html.

- Pardey, P.G. and P.L. Pingali. *Reassessing International Research for Food and Agriculture*. Rome: Global Forum for Agricultural Research, 2010 (Prepared for the Global Conference of Agricultural Research for Development, Montpellier, France, March 2010), pp. 54.
- Pardey, P.G., S. Wood, and R. Hertford, eds. *Research Futures: Projecting Agricultural R&D Potentials for Latin America and the Caribbean*. Washington D.C.: Inter-American Development Bank and International Food Policy Research Institute, May 2009 (Spanish), pp. vii + 332. Available at <http://www.ifpri.org/node/4893>.
- Pardey, P.G., J. James, J. Alston, S. Wood, B. Koo, E. Binenbaum, T. Hurley and P. Glewwe. *Science, Technology and Skills*. Background Paper for the World Bank's *World Development Report 2008*. St. Paul, Rome and Washington D.C.: University of Minnesota, CGIAR Science Council and World Bank, 2007, pp. 95.
- Pardey, P.G., S. Dehmer and J. Beddow. *Long Gone Lake Wobegon?: The State of Investments in University of Minnesota Research*, InSTePP Report, St. Paul: University of Minnesota, 2007, pp. v + 46.
- Pardey, P.G., J.M. Alston, and R.R. Piggott, eds. *Agricultural R&D in the Developing World: Too Little, Too Late?* Washington D.C.: International Food Policy Research Institute, 2006, pp. xx + 398. Available at <http://www.ifpri.org/publication/agricultural-rd-developing-world>.
- Pardey, P.G. J.M. Alston, C. Chan-Kang, E. Castello Magalhães, and S.A. Vosti. *Assessing and Attributing the Benefits from Varietal Improvement Research in Brazil*. IFPRI Research Report No 136. Washington D.C.: International Food Policy Research Institute, 2004, pp. xii + 90.
- Koo. B., P.G. Pardey, B.D. Wright, and others. *Saving Seeds: The Economics of Conserving Crop Genetic Resources Ex Situ in the Future Harvest Centers of the CGIAR*. Wallingford U.K.: CAB International, 2004, pp. xxiii + 207.
- Pardey, P.G. and V.H. Smith, eds. *What's Economics Worth? Valuing Policy Research*. Baltimore: Johns Hopkins University Press, 2004, pp. xviii + 318.
- Runge, F.C., B. Senauer, P.G. Pardey, and M.W. Rosegrant. *Ending Hunger in our Lifetime: Food Security and Globalization*. Baltimore: John Hopkins University Press, 2003, pp. xxi + 288.
- Pardey, P.G., J. M. Alston, C. Chan-Kang, E.C. Magalhães, and S.A. Vosti. *Calculado e Atribuindo os Benefícios da Pesquisa de Melhoramento de Variedades: O Casa da Embrapa* (E. Alves, M. Magalhães, and P. Guedes, Editores Técnicos). Brasília: Embrapa Informação Tecnológica, 2002, pp. xvi + 248.
- Pardey, P.G., ed. *The Future of Food: Biotechnology Markets and Policies in an International Setting*. Washington D.C.: International Food Policy Research Institute, 2001, pp. xii + 316. (Chinese edition translated by Simen Wen and Liangyun Sun, China Agricultural Publishing House, October 2002).
- Alston, J.M., P.G. Pardey and M. J. Taylor. eds. *Agricultural Science Policy: Changing Global Agendas*. Baltimore: Johns Hopkins University Press, 2001, pp. xvi + 285.
- Alston, J.M., M.C. Marra, P.G. Pardey and T.J. Wyatt. *A Meta Analysis of Rates of Return to Agricultural R&D: Ex Pede Herculem?* Washington D.C.: IFPRI Research Report No 113, 2000, pp. x +148.
- Alston, J.M., P.G. Pardey and V.H. Smith. eds. *Paying for Agricultural Productivity*, Baltimore: Johns Hopkins University Press, 1999, pp. xix + 315.
- Alston, J.M. and P.G. Pardey. *Making Science Pay: The Economics of Agricultural R&D Policy*. Washington D.C.: American Enterprise Institute Press, 1996, pp. xxiv + 375.
- Alston, J.M., G.W. Norton and P.G. Pardey. *Science Under Scarcity: Principles and Practice for Agricultural Research Evaluation and Priority Setting*. Ithaca: Cornell University Press, 1995, pp. xxxi + 551. (reprinted in soft cover by CAB International 1998).

Alston, J.M., P.G. Pardey and H.O. Carter, eds. *Valuing UC Agricultural Research and Extension*. Davis: University of California, Agricultural Issues Center, March 1994, pp. vi + 117.

Fan, S. and P.G. Pardey. *Agricultural Research in China: Its Institutional Development and Impact*. The Hague: International Service for National Agricultural Research, 1992, pp. xxii + 96 (Chinese edition, 1994, pp. xxii +

Pardey, P.G., J. Roseboom and J.R. Anderson, eds. *Agricultural Research Policy: International Quantitative Perspectives* Cambridge: Cambridge University Press, 1991, pp. xxii + 462.

Pardey, P.G. and J. Roseboom. *ISNAR Agricultural Research Indicator Series: A Global Data Base on National Agricultural 80*).

Pardey *Research Systems*. Cambridge: Cambridge University Press, 1989, pp. xxii + 547.

2. Dissertations

Pardey, P.G. "Public Sector Production of Agricultural Knowledge." Ph.D. dissertation, University of Minnesota, St. Paul/Minneapolis, Minnesota, 1986, pp. vi + 153.

Pardey, P.G. "The Diffusion of Trace Element Technology: An Economic Analysis." Master of Agricultural Science dissertation, University of Adelaide, South Australia, 1978, pp. iii + 152.

3. Refereed Journal Articles (published and in press)

Graff, G.D. and P.G. Pardey. "Inventions and Patenting in Africa: Empirical Trends from 1970 to 2010." *Journal of World Intellectual Property* (November 2019), early online access, doi: 10.1111/jwip.12139

Xiaowei, J., A. Khandelwal, D.J. Mulla, P.G. Pardey and V. Kumar. "Bringing Automated, Remote-Sensed, Machine Learning Methods to Monitoring Crop Landscapes at Scale." *Agricultural Economics* 50, S1 (2019): 41-50.

Carvajal-Yepes, M., K. Cardwell, A. Nelson, K. Garrett, B. Giovani, D.G.O. Saunders, S. Kamoun, J. Legg, V. Verdier, J. Lessel, R.A. Neher, R. Day, P. Pardey, M.L. Gullino, A. Records, B. Bextine, J.E. Leach, S. Staiger, and J. Tohme. "Global Surveillance System for Crop Diseases." *Science* 364(6447)(2019): 1237-1239.

Chai, Y, P.G. Pardey, C. Chan-Kang, J. Huang, K. Lee and W. Dong. "Passing the Food and Agricultural R&D Buck? The United States and China." *Food Policy* 86 (2019) doi.org/10.1016/j.foodpol.2019.101729.

Rao, X., T.M. Hurley and P.G. Pardey. "Are Agricultural R&D Returns Declining and Development Dependent?" *World Development* 122(2019): 27-37.

Dehmer, S.P., P.G. Pardey, J.M. Beddow and Y. Chai. "Reshuffling the Global R&D Deck, 1980-2050." *PLOS ONE* (March 2019): <https://doi.org/10.1371/journal.pone.0213801>.

Joglekar, A.B., U. Wood-Sichra and P.G. Pardey. "Pixelating Crop Production: Consequences of Methodological Choices." *PLOS ONE* 14(2)(2019) e0212281. <https://doi.org/10.1371/journal.pone.0212281>.

Kirsten, J., P.G. Pardey and C. Thirtle. "Recalibrating South African Agricultural Growth: Frikkie Liebenberg in Memoriam." *Agrekon* 58(1)(2019): 3–6. doi.org/10.1080/03031853.2019.1567357.

Greyling, J.C. and P.G. Pardey. "Measuring Maize in South Africa: The Shifting Structure of Production during the Twentieth Century, 1904–2015." *Agrekon* 58(1)(2019): 21–41. doi.org/10.1080/03031853.2018.1523017

Andersen, M.A., J.M. Alston, P.G. Pardey and A. Smith. "A Century of U.S. Farm Productivity Growth: A Surge Then a Slowdown." *American Journal of Agricultural Economics* 100(4)(2018): 1072-1090.

Hurley, T.M, X. Rao and P.G. Pardey. "Re-examining the Reported Rates of Return to Food and Agricultural Research and Development—Reply." *American Journal of Agricultural Economics* 99(3)(2017): 827–836.

Pardey, P.G., R.S. Andrade, T.M. Hurley, X. Rao and F.G. Liebenberg. "Returns to Food and Agricultural R&D Investments in Sub-Saharan Africa, 1975–2014." *Food Policy* 65(2016):1-8.

Pardey, P.G., C. Chan-Kang, S.P. Dehmer and J.M. Beddow. "Agricultural R&D is on the Move." *Nature* 15 (537)(September 2016): 301-303.

_____ Supplementary information to "Agricultural R&D is on the Move." Available at http://www.nature.com/polopoly_fs/7.39087.1473843554!/suppinfoFile/537301a-s1.pdf.

Alston, J.M., K. Anderson and P.G. Pardey. "Antipodean Agricultural and Resource Economics at 60: Introduction." *Australian Journal of Agricultural and Resource Economics* 60(4)(2016): 493-505.

Alston, J.M. and P.G. Pardey. "Antipodean Agricultural and Resource Economics at 60: Agricultural Innovation." *Australian Journal of Agricultural and Resource Economics* 60(4)(2016): 554-568.

Liebenberg, F., P.G. Pardey, J.M. Beddow and J. Kirsten. "Re-Estimating South African Agricultural Output Value, Price and Quantity Aggregates, 1910–2010." *Agrekon* 54(4)(2015): 1-27 (online).

Beddow, J.M., P.G. Pardey, Y. Chai, T.M. Hurley, D.J. Kriticos, H-J. Braun, R.F. Park, W.S. Cuddy and T. Yonow. "Research Investment Implications of Shifts in the Global Geography of Wheat Stripe Rust." *Nature Plants* 1(10)(2015):1-5.

Pardey, P.G., C. Chan-Kang, J.M. Beddow and S. Dehmer. "Long-run and Global R&D Funding Trajectories: The U.S. Farm Bill in a Changing Context." *American Journal of Agricultural Economics* 97(5)(2015): 1312-1323.

Drew, J., C. Yue, N.O. Anderson and P.G. Pardey. "Premiums and Discounts for Plant Patents and Trademarks used on Ornamental Plant Cultivars: A Hedonic Price Analysis." *Hortscience* 50(6)(2015):879–887.

Beddow, J.M. and P.G. Pardey. "Moving Matters: The Effect of Location on Crop Production." *Journal of Economic History* 75(1)(March 2015): 219-249.

Pardey, P.G., J.M. Beddow and S.T. Buccola. "Losing the Plot? Agricultural Research Policy and the 2014 Farm Bill." *Choices* (3rd Quarter, 2014). Published on line at <http://www.choicesmagazine.org/magazine/issue.php>.

Rae, A. and P.G. Pardey. "Global Food Security—Introduction." *Australian Journal of Agricultural and Resource Economics* 58 (4)(2014): 499-503.

Pardey, P.G., J.M. Beddow, T.M. Hurley, T.K.M. Beatty and V.R. Eidman. "A Bounds Analysis of World Food Futures: Global Agriculture Through to 2050." *Australian Journal of Agricultural and Resource Economics* 58 (4)(2014): 571-589.

Hurley, T.M, X. Rao and P.G. Pardey. "Re-examining the Reported Rates of Return to Food and Agricultural Research and Development." *American Journal of Agricultural Economics* 96(5)(2014):1492-1504.

_____ "AJAE Appendix for Reexamining the Reported Rates of Return to Food and Agricultural Research and Development. Supporting online material, May 3, 2014. Available at <http://ajae.oxfordjournals.org/content/early/2014/05/31/ajae.aau047/suppl/DC1>.

Alston, J.M. and P.G. Pardey "Agriculture in the Global Economy" *Journal of Economic Perspectives* 28(1)(Winter 2014): 121-146.

Alston, J.M. and P.G. Pardey. "Agricultural R&D and Food Security of the Poor." *Economic Papers* 32(3)(September 2013): 289-297.

Pardey, P.G., J.M. Alston and C. Chan-Kang. "Public Agricultural R&D over the Past Half Century: An Emerging New World Order." *Agricultural Economics* 44 (s1)(November 2013): 103-113.

Graff, G.D. D. Phillips, Z. Lei, S. Oh, C. Nottenburg and P.G. Pardey "Not Quite a Myriad of Gene Patents." *Nature Biotechnology* 31(5)(2013): 404-410.

Pardey, P.G., J.M. Beddow, D.J. Kriticos, T.M. Hurley, R.F. Park, E. Duveiller, R.W. Sutherst, J.J. Burdon and D. Hodson. "Right-sizing Stem Rust Research." *Science* 340(2013): 147-148.

_____ Supplementary materials for "Right Sizing Stem Rust Research" available on line at www.sciencemag.org/cgi/content/full/339/6129/page/DC1.

Pardey, P., B. Koo, J. Drew, J. Horwich and C. Nottenburg. "The Evolving Landscape of Plant Varietal Rights in the United States, 1930-2008." *Nature Biotechnology* 31(1)(2013): 25-29.

Liebenberg, F.L. and P.G. Pardey. "A Long-run View of South African Agricultural Production and Productivity." *African Journal of Agricultural and Resource Economics* 7(1)(2012): 14-38.

Andersen, M.A, J.M. Alston and P.G. Pardey. "Erratum—Capital Services in U.S. Agriculture: Concepts, Comparisons, and the Treatment of Interest Rates: An Error and a Correction." *American Journal of Agricultural Economics* 94(5)(2012): 1247-1248.

Andersen, M.A, J.M. Alston and P.G. Pardey. "Capital Use Intensity and Productivity Biases." *Journal of Productivity Analysis* 37(1)(2012): 59-71.

Alston, J.M., M.A. Andersen, J.S. James and P.G. Pardey. "The Economic Returns to U.S. Public Agricultural Research." *American Journal of Agricultural Economics* 93(5)(2011): 1257-1277.

Liebenberg, F., P.G. Pardey and M. Kahn. "South African Agricultural R&D Investments: Sources, Structure, and Trends, 1910-2007." *Agrekon* 50(2)(2011):1-26.

Pardey, P.G. "A Strategic Look at Global Wheat Production, Productivity and R&D Developments." *Czech Journal of Genetic Plant Breeding* 47 (2011 Special Issue): S6–S19.

Andersen, M.A., J.M. Alston and P.G. Pardey. "Capital Services in U.S. Agriculture: Concepts, Comparisons, and the Treatment of Interest Rates." *American Journal of Agricultural Economics* 93(3)(2011): 714-734.

Liebenberg, F. and P.G. Pardey. "South African Agricultural R&D: Policies and Public Institutions, 1880s-2007." *Agrekon* 50(1)(2011): 1-15.

Alston, J.M., J.M. Beddow and P.G. Pardey. "Food Commodity Prices in the Long Run: The Crucial Role of Agricultural Research and Productivity." *EuroChoices* 9(3)(2010). Available at <http://onlinelibrary.wiley.com/doi/10.1111/euch.2010.9.issue-3/issuetoc>.

Alston, J.M. and P. G. Pardey. "Agricultural Productivity and Global Food Security." *Choices* 24(4) (Fourth Quarter 2009). Published on line at <http://www.choicesmagazine.org/magazine/issue.php>

Beddow, J.M., P.G. Pardey and J.M. Alston. "The Shifting Global Pattern of Agricultural Productivity." *Choices* 24(4) (Fourth Quarter 2009). Published on line at <http://www.choicesmagazine.org/magazine/issue.php>

James, J., J.M. Alston, P.G. Pardey and M.A. Andersen. "Shifting Patterns of Agricultural Production and Productivity in the United States." *Choices* 24(4) (Fourth Quarter 2009). Published on line at <http://www.choicesmagazine.org/magazine/issue.php>.

Alston, J.M., P.G. Pardey, J.S. James and M.A. Andersen. "A Review of Research on the Economics of Agricultural R&D." *Annual Reviews of Resource Economics* 1(October 2009): 537-565.

Alston, J.M., J.M. Beddow and P.G. Pardey. "Agricultural Research, Productivity, and Food Prices in the Long Run." *Science* 325(4)(September 2009): 1209-1210. Supporting online material available at www.sciencemag.org/cgi/content/full/325/5945/1209/DC1.

Alston, J.M. and P.G. Pardey. "Public Funding for Research into Specialty Crops." *HortScience* 43(5)(2008): 1461-1470.

Nagarajan, L., P.G. Pardey and M. Smale. "Seed Systems and Millet Crops in Marginal Environments of India: Industry and Policy Perspectives." *Quarterly Journal of International Agriculture* 3(2007): 263-288.

Pardey, P.G. "Agricultural Globalization: Is it Good or Bad for Developing Economies?—Discussant Comments" *American Journal of Agricultural Economics* 88(5)(December 2006): 1235-1236.

Koo, B., P.G. Pardey, K. Qian and Y. Zhang. "An Option Perspective on Generating and Maintaining Plant Variety Rights in China." *Agricultural Economics* 35(1)(2006): 35-48.

Pardey, P.G., J.M. Alston, C. Chan-Kang, E. Magalhães and S. Vosti. "International and Institutional R&D Spillovers: Attribution of Benefits Among Sources for Brazil's New Crop Varieties." *American Journal of Agricultural Economics* 88(1)(February 2006): 104-123.

Wright, B.D. and P.G. Pardey. "The Evolving Rights to Intellectual Property Protection in the Agricultural Biosciences." *International Journal for Technology and Globalization* 2 (1/2)(2006): 12-29.

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