

## VITA

### JOHN H. SANDERS

Feb. 2, 2017

Professor  
Department of Agricultural Economics  
Purdue University  
1145 Krannert Bldg., #609  
West Lafayette, Indiana 47907-1145

Ph: (765) 494-4221 office  
(765) 463-2169 home  
Fax: (765) 494-9176  
E-Mail: jsander1@purdue.edu

#### **Honors:**

- Gates Foundation grant for work in Mali and Burkina Faso, 2014-2016
- Purdue Acorn award (joint) for bringing in a million dollars in research funds, 2008
- Team award for excellence in interdisciplinary research and education for work in INTSORMIL with other Purdue scientists, May 1998.
- Associate Editor for *Journal of Production Agriculture* 1986-1990.
- Award from University of Evora and letter of commendation from the American Ambassador to Portugal for two years of service to the University, 1981-83.
- Co-recipient of the Award for Published Research of the American Agricultural Economics Association as one of the authors of the Binswanger, et al., *Induced Innovations*, 1979.
- Foreign Area Fellowship for dissertation research, Institute of Agricultural Economics of the State Secretary of Agriculture, Sao Paulo, Brazil, Nov. 1971-Jan. 1973.

#### **Education:**

- Ph.D. in Economics, University of Minnesota, Dec. 1973.
- M.S. in Agricultural Economics, University of Kentucky, 1967.
- B.A. in Government, Dartmouth College, 1963.

#### **Foreign Professional Experience:**

- More than 120 trips to Sub-Saharan Africa since starting to become involved there with Purdue projects in June 1983. Consulting and Purdue contracts
- Brazil, November 1971-November 1976 (excluding January-August 1973 at the University of Minnesota). First for PhD research in Sao Paulo and Mato Grosso. Then with the Ford Foundation placed in the University of Ceara in Fortaleza, Ceara
- Colombia, November 1976-February 1981, Economist on the Bean team at CIAT in Cali, Colombia

- Portugal, March 1981-March 1983. Purdue representative at the University of Evora in a collaborative project to develop a land grant type orientation of research-extension in three Portuguese Universities
- Short-term consulting/research since returning to Purdue in spring 1983: Worked in 35 countries, 22 in Sub-Saharan Africa. Made over 100 trips to Sub Saharan Africa. In last twelve years (2004-2016) concentrating on the Sahelian counties with frequent trips in support of extension fieldwork there. .

**Languages:**

Portuguese, Spanish, French

**Employment Experience:**

- Principal Scientist. Gates Foundation grant. September 2014-March 1, 2016. Undertake field studies of secondary markets for sorghum and millet and evaluation of our pilot project and IICEM scaling up of our technology in Mali. Introduction of a new technology system in Mopti region on 3,000 ha.
- Co-director of Production-Marketing Project. Development project in four Sahelian countries introducing new sorghum and millet technologies and facilitating contracts between farmers, groups, and food/feed processing sector. Implemented marketing strategies to raise farmers' incomes and accelerate the technology introduction process supported by WARP (West African Regional Program of USAID) and by INTSORMIL, 2003-2014. Funded by the regional program for West Africa of USAID, 2004-2007. Funded by USAID-Mali, 2008-12 and then the McKnight Foundation, 2010-2014.
- Impact studies, INTSORMIL. Contract with USAID/Africa to train West Africans in doing impact studies and to undertake impact studies there, 1994-2002.
- Professor, Department of Agricultural Economics, Purdue University, May 1983-present. Teach graduate course in Economic Development. Have taught Production Economics and Risk Analysis in Advanced Agricultural Production Economics. Technical Coordinator, Purdue Farming Systems Project in Burkina Faso, June 1983-Dec. 1985. Director of INTSORMIL Project on economics of technological change in sorghum and millet production in Burkina Faso, Niger, Sudan, Mali. Also El Salvador and Nicaragua July 1985-April 2013.
- Project Coordinator of AID Purdue Contract at University of Evora, Portugal, Mar. 1981-Mar. 1983. Coordinated training and consulting activities of a staff development program. The professional responsibilities were to work with the Economic and Management departments on regional agricultural development problems.
- Agricultural Economist in the Bean Program at CIAT (Centro Internacional de Agricultura Tropical), Cali, Colombia, November 1976-February 1981. Evaluated the impact of actual and potential new technologies in bean production and made an economic input into the design process of new technologies. Designed, implemented, and analyzed farm trials in three zones of Colombia. Bean Program representative to Brazil and also traveled frequently to Central America to work with national bean research programs there.
- Ford Foundation Visiting Professor, Department of Agricultural Economics, Federal University of Ceara, Brazil, Aug. 1973-Nov. 1976. Taught Quantitative Methods (Econometrics and Programming) and advised graduate students in a new Master's Degree Program in Agricultural Economics. Research in production economics and economics of technological change.
- Short-Term Employment Experience
- IGAD Project leader. Evaluated technology introduction experience, constraints, and potential in six Horn countries of Africa, Nov. 1999 – Sept. 2000.
- World Bank, consultant. For Operations Development Department (OED), did an audit of agricultural research and services projects and participated in a country review of Burkina Faso, Jan.-Mar., 1999.

- Member of a team to evaluate IFDC Soil Fertility Initiative in several West African countries for the government of The Netherlands, Mar.-Apr. 1998.
- Member of two ICRISAT teams to review performance of ICRISAT programs in West, East, and Southern Africa, Mar. 1996.
- Member of a five-person team to evaluate performance of USAID/Oregon State program to strengthen agricultural research and extension system of Malawi, spring 1992 (Chemonics).
- Evaluated the performance of the Epidemiology and Socio-Economic Unit of the International Laboratory for Research on Animal Diseases (ILRAD) in Nairobi, Kenya for the Rockefeller Foundation, spring 1990.
- Led 3-man consulting team to Burkina Faso to analyze impact of an international crop networking project (SAFGRAD-II) for the principal food crops of the semi-arid regions of Sub-Saharan Africa (Checchi and Company Consulting, Inc. -- for AID), summer 1988.
- Led 4-man consulting team to analyze economic, agronomic, and conservation issues of introducing technological change in six agricultural regions of Burkina Faso (World Bank), spring 1987.
- Led 4-man consulting team to review performance of the Center of Agricultural Sciences of the Federal University of Ceara, Brazil (AID Contract), fall 1986.

### **Publications:**

#### ***Journal Articles***

Coulibaly, J., and J.H. Sanders, September 2015. "Do Women Benefit from New Technology and Higher Cotton Prices in the Malian Cotton System?" *Journal of Economics and Development Studies*, 2334-2382.

Coulibaly, J. J.H. Sanders, P. Preckel, and T. Baker, 2015. "Will Cotton Make a Comeback in Mali?" *Agricultural Economics*, 46: 53-67.

Yigezu, Y. A. and J.H.Sanders, 2012. "Introducing New Agricultural Technologies and Marketing Strategies: A Means of Increasing Incomes and Nutrition of Farm Households in Ethiopia," *African Journal of Food, Agriculture, Nutrition and Development*, 12(5), 6365-6384.

Baquedano, F., J.H.Sanders, and J. Vitale, 2010. "Increasing Incomes of Malian Cotton Farmers: Is Elimination of US Subsidies the Only Solution," *Agricultural Systems*, 118:418-432..

Vitale, Jeffrey, Tracey Boyer, Rafael Uaiene, and John H. Sanders, 2007, "The Economic Impacts of Introducing Bt Technology in Smallholder Cotton Production Systems of West Africa: A Case Study from Mali," *AgBioForum*, 10 (2):71-84. <http://www.agbioforum.org/v10n2/v10n2a02-vitale.htm>

Baquedano, F. and J.H.Sanders. 2006. Introducing Inventory Credit into Nigerien Agriculture: Improving Technology Diffusion. *Agricultural Finance Review*, Vol. 66, No. 2 Special Issue, (297-314).

Nega Gebreselassie and J. H. Sanders. 2006. "Farm-level Adoption of Sorghum Technologies in Tigray, Ethiopia" *Agricultural Systems*, 91 (122-134).

Abdoulaye, Tahirou and John H. Sanders, 2006. "New Technologies, Marketing Strategies and Public Food Policy for Traditional Food Crops: Millet in Niger, " *Agricultural Systems*, 90 (279-292)

Abdoulaye, Tahirou, and John H. Sanders, 2005. "Stages and Determinants of Fertilizer Use in Semiarid African Agriculture: The Niger Experience," *Agricultural Economics*, 32(167-179).

- Cabanilla, Liborio S., Tahirou Abdoulaye, and John H. Sanders, 2005. "Economic cost of non-adoption of Bt-cotton in West Africa: with special reference to Mali," *International Journal of Biotechnology*, Vol. 7, No. 1/2/3; 46-61.
- Vitale, Jeffrey D., and John H. Sanders, 2005. "New Markets and Technological Change for the Traditional Cereals in Semiarid Sub-Saharan Africa: The Malian Case," *Agricultural Economics*, 32(111-129).
- Sanders, John H., and Barry I. Shapiro, 2003. "Crop Technology Introduction in Semiarid West Africa: Performance and Future Strategy," *Journal of Crop Production* 9(2):559-592.
- Ahmed, M.M., J.H. Sanders, and W.T. Nell, 2000. New Sorghum and Millet Cultivar Introduction in Sub-Saharan Africa: Impacts and Research Agenda." *Agricultural Systems*, 64(2000):55-65.
- Lawrence, Pareena G., John H. Sanders, and Sunder Ramaswamy, 1999. The Impact of Agricultural and Household Technologies on Women: A Conceptual and Quantitative Analysis in Burkina Faso," *Agricultural Economics* 20(3):203-214.
- Nell, W.T., H.D. Van Schalkwyk, J.H. Sanders, L. Schwalbach, and C.J. Bester, 1999. Adoption of Veterinary Services by Sheep and Goat Farmers in Qwaqwa," *Agrekon* 37(4):418-434.
- M.Ahmed, Mohamed, and John H. Sanders, 1998. Shifting From Extensive to Intensive Agricultural Systems: A Case Study in the Sudan," *Agricultural Systems* 58(2):253-268.
- Lilja, Nina, and John H. Sanders, 1998. "Welfare Impacts of Technological Change on Women in Mali," *Agricultural Economics* 19(1-2):73-79.
- Coulibaly, Ousmane N., Jeffrey D. Vitale, and John H. Sanders, 1998. Expected Effects of Devaluation on Cereal Production in the Sudanian Region of Mali," *Agricultural Systems* 57(4):489-503.
- Sanders, John H., Barry I. Shapiro, and Sunder Ramaswamy, 1998. "A Strategy for Technology Development for Semiarid Sub-Saharan Africa," *Outlook on Agriculture* 27(3):157-161.
- Shapiro, Barry I., and John H. Sanders, 1998. "Fertilizer Use in Semiarid West Africa: Profitability and Supporting Policy," *Agricultural Systems* 56(4):467-482.
- McMillan, D.E., J.H. Sanders, Dolores Koenig, Kofi Akwabi-Ameyaw, and Thomas Painter, 1998. "Agricultural Performance of New Lands Settlement in West Africa," *World Development* 26(2):187-211.
- Nichola, Tennassie, and John H. Sanders, 1997. "The Seed Industry and the Diffusion of a Sorghum Hybrid in Sudan," *Science, Technology, and Development* 15(2&3):259-271.
- Lilja, Nina, John H. Sanders, Catherine A. Durham, Hugo De Groote, and Issiaka Dembélé, 1996. "Factors Influencing the Payments to Women in Malian Agriculture," *American Journal of Agricultural Economics* 78(5):1340-1345.
- Nichola, Tennassie, and John H. Sanders, 1996. "A Probit Analysis of Adoption When Inputs Are Rationed: The Gezira Experience With Hybrid Sorghum," *Science, Technology, and Development* 14(3):107-119.
- M. Ahmed, Mohamed, W.A. Masters, and John H. Sanders, 1995. "Returns From Research in Economies With Policy Distortions: Hybrid Sorghum in Sudan," *Agricultural Economics* 12(2):183-192.
- Lopez-Pereira, M.A., J.H. Sanders, T. Baker, and P.V. Preckel, 1994. "Economics of Erosion Control and Seed: Fertilizer Technologies for Hillside Farming in Honduras," *Agricultural Economics* 11:271-288.
- Shapiro, B.I., J.H. Sanders, K.C. Reddy, and T.G. Baker, 1993. "Evaluating and Adapting New Technologies in a High-Risk Agricultural System – Niger," *Agricultural Systems* 42(1-2):153-171.

Ramaswamy, S., and J.H. Sanders, 1992. "Population Pressure, Land Degradation, and Sustainable Agricultural Technologies in the Sahel," *Agricultural Systems* 40(4):361-378.

Lopez-Pereira, M.A., and J.H. Sanders, 1992. "Market Factors, Government Policies, and Adoption of New Technology by Small Honduran Farmers: A Stochastic Programming Application," *Quarterly Journal of International Agriculture* 31(1):55-73.

Adesina, A.A., and J.H. Sanders, 1991. "Small Farmer Behavior and Cereal Technology Adoption: A Stochastic Programming Approach in Niger," *Agricultural Economics* 5(1):21-38.

Southgate, D., J.H. Sanders, and S. Ehui, 1990. "Resource Degradation in Africa and Latin America: Population Pressure, Policies, and Property Arrangements," invited paper for *American Journal of Agricultural Economics* 72(5): 1259-1263.

Sanders, John H., Joseph G. Nagy, and Sunder Ramaswamy, 1990. "Developing New Agricultural Technologies for the Sahelian Countries: The Burkina Faso Case," *Economic Development and Cultural Change* 39(1):1-22.

Nagy, Joseph G. and John H. Sanders, 1990. "Agricultural Technology Development and Dissemination Within a Farming Systems Perspective," *Agricultural Systems* 32(4):305-320.

Deuson, Robert R., and John H. Sanders, 1990. "Cereal Technology Development in the Sahel: Burkina Faso and Niger," (Viewpoint), *Land Use Policy* 7(3):195-197.

Lopez-Pereira, M.A., T.G. Baker, J.H. Sanders, and D.H. Meckenstock, 1990. "Farming Systems and Adoption of New Agricultural Technologies: An Economic Evaluation of New Sorghum Cultivars in Southern Honduras," *Journal for Farming Systems Research-Extension* 1(2):81-103.

Sanders, John H., Richard L. Meyer, Roger W. Fox, and Fernando C. Peres, 1989. "Agricultural University Institution Building in Brazil: Successes, Problems, and Lessons for Other Countries," invited paper for *American Journal of Agricultural Economics* 71(5):1206-1210.

Sanders, John H., 1989. "Agricultural Research and New Technology Introduction in Burkina Faso and Niger," *Agricultural Systems* 30:139-154.

Nagy, Joseph G., John H. Sanders, and Herbert W. Ohm, 1988. "Cereal Technology Interventions for the West African Semi-Arid Tropics," *Agricultural Economics* 2:179-208.

Vieira, Arnaldo P., John H. Sanders, and Mohamed K. Habash, 1988. "Regional Decentralization of New Agricultural Technologies: A Case Study of Soybean Diffusion in the United States and Brazil," *Quarterly Journal of International Agriculture* 27(2):150-162.

Adesina, A.A., P.C. Abbott, and J.H. Sanders, 1988. "Ex-Ante Risk Programming Appraisal of New Agricultural Technology: Experiment Station Fertilizer Recommendations in Southern Niger," *Agricultural Systems* 27: 23-34.

Sanders, J.H., J.K. Binkley, and M.A. Martin, 1987. "Algunas Consecuencias de la Entrada de Espana y Portugal en la CEE," ("Some Consequences of the Entrance of Spain and Portugal into the European Common Market"), *Revista de Estudios Agro-Sociales* 141 (Julio-Setiembre):9-34.

Martins da Silva, M. Gabriela, Antonio C.A. Pinheiro, and John H. Sanders, 1985. "Afectacao dos Recursos Agricolas na Empresa Agricola do Baixo Alentejo," ("Farm Resource Allocation in the Lower Alentejo"), *Economia e Sociologia (Economics and Sociology)* 40: 5-35.

Stabile, Martin, John H. Sanders, and Truman Phillips, 1984. "New Technology Introduction in a Marginal Coffee Area of Colombia," *Food Policy* 19(3): 245-51.

Casquinha, J.J. Freixial, M. Leonor P.M.V. Silva Carvalho, J.M. Simoes Ribeiro, and John H. Sanders, 1983. "Intensificacao de Producao Ovina no Alentejo: Resultados de uma Experimentacao na Universidade de Evora," ("Intensification of Sheep Production in the Alentejo: Results of an Experiment at the University of Evora"), *Pastagens e Forragens (Pastures and Forages)* 3: 161-73.

Sanders, John H. and Dennis Johnson, 1982. "Selecting and Evaluating New Technology for Small Farmers in the Colombian Andes," *Mountain Research and Development* 2(3): 307-16.

Sanders, John H. and John K. Lynam, 1982. "Evaluation of New Technology on Farms: Methodology and Some Results from Two Crop Programs at CIAT," *Agricultural Systems* 9(2): 97-112.

Sanders, John H. and John K. Lynam, 1982. "Definition of the Relevant Constraints for Research Resource Allocation in Crop Breeding Programs," *Agricultural Administration* 9(4): 273-84.

Sanders, John H. and Geni H. Nicoleti, 1982. "A Situacao do Feijao (*Phaseolus vulgaris* e *vigna*) no Brasil com Algumas Sugestecoes para a Politica," ("The Bean Situation in Brazil with Some Suggestions for Policy"), *Revista de Economica Rural, (Review of Rural Economics)* 20(4): 605-25.

Sanders, John H. and John K. Lynam, 1981. "New Agricultural Technology and Small Farmers in Latin America," *Food Policy* 6(1): 11-18.

Sanders, John H. and Wilson Guedes Almeida, 1980. "Fontes de Variacao da Renda (1973-1974) de Pequenos Proprietarios e Parceiros com Sugestecoes para Politica," ("Sources of Variation in Income of Small Farmers and Sharecroppers with Suggestions for Policy"), *Revista de Economica Rural, (Review of Rural Economics)* 18(1): 143-61.

Goodwin, Joseph, John H. Sanders, and Antonio Diaz de Hollanda, 1980. "Ex-Ante Appraisal of New Technology: Sorghum in Northeast Brazil," *American Journal of Agricultural Economics* 62(4): 737-41.

Ward, John O. and John H. Sanders, 1980. "Nutritional Determinants and Migration in the Brazilian Northeast: A Case Study of Rural and Urban Ceara," *Economic Development and Cultural Change* 29(1): 141-63. An earlier version was published in a Brazilian journal.

Sanders, John H., 1979. "New Agricultural Technology in the Brazilian Sertao," published in Portuguese by *Economic Review of the Northeast*

Sanders, John H., and Antonio Dias de Hollanda, 1979. "Technology Design for Semi-Arid Northeast Brazil," published in Portuguese in *Economic Review of the Northeast*

Moutinho, Diva Aparecida, John H. Sanders, and Michael T. Weber, 1978. "Tomada de Decisao sob Condicoes de Risco em Relacao a Nova Tecnologia para a Producao de Feijao de Corda," ("Decision Making with Risk on New Technology for Cowpea Production"), *Revista de Economica Rural, (Review of Rural Economics)* 16(3): 189-208.

Barbosa, Antonio Rodriguez, Roberto Claudio de A. Carvalho, and John H. Sanders, 1978. "Efficiencia no Uso de Fatores de Producao e Tecnologia Nova em Varios Tamanhos de Fazenda, Regiao do Serido - Estado do Rio Grande do Norte," ("Efficiency in the Use of Inputs and New Technology for Various Farm Sizes, Region of Serido - State of Rio Grande do Norte"), *Revista de Economica Rural (Review of Rural Economics)* 9(3): 189-208.

de Albuquerque, Dalmo M.L., and John H. Sanders, 1978. "Selecao e Avaliacao de Nova Tecnologia para os Pequenos Agricultores do Sertao Central do Ceara," ("Selection and Evaluation of New Technology for Small Farmers of the Central Sertao of Ceara"), *Revista Economica do Nordeste (Economic Review of the Northeast)* 9(1): 99-118.

Francis, C.A. and John H. Sanders, 1978. "Economic Analysis of Bean and Maize Systems: Monoculture Versus Associated Cropping," *Field Crops Research* 1(4): 319-35.

Francis, C.A., C.A. Flor, M. Prager, and John H. Sanders, 1978. "Density Response to Climbing Beans in Two Cropping Systems," *Field Crops Research* 1(3): 255-67.

de Hollanda, Antonio Dias and John H. Sanders, 1976. "Avaliacao da Introducao de Nova Tecnologia para Pequenos e Medios Agricultores sob Condicoes de Risco - O Serido do Rio Grande do Norte," ("Evaluation of the Introduction of New Technology for Small and Medium Size Farmers with Risk - The Serido of Rio Grande do Norte"), *Revista Economica do Nordeste (Economic Review of the Northeast)* 7(4): 643-80.

Sanders, John H., Jose Aluisio Pereira, and Mauro Barros Gondim, 1976. "Mudanca Tecnologica e Desenvolvimento Agricola no Estado do Ceara," ("Technological Change and Agricultural Development in the State of Ceara"), *Revista de Economica Rural, (Review of Rural Economics)* 1(3): 239-55.

Mesquita, Teobaldo Campos, Paulo Roberto Silva, and John H. Sanders, 1976. "Procura Potencial para o Sorgo Granifero do Nordeste Brasileiro," ("Potential Demand for Grain Sorghum in the Brazilian Northeast"), *Revista Economica do Nordeste, (Economic Review of the Northeast)* 7(1): 103-18.

Sanders, John H. and Frederick L. Bein, 1976. "Agricultural Development on the Brazilian Frontier: Southern Mato Grosso," *Economic Development and Cultural Change* 24(3): 593-610. Also published in Brazilian and Japanese journals.

Barbosa, Francisco Ernani Pagels, Jose Aluisio Pereira, John H. Sanders and Roger William Fox, 1975. "Comercializacao de Bovinos no Estado do Piaui, 1967-1972." ("Marketing of Cattle in the State of Piaui, 1967-1972"), *Revista Economica do Nordeste, (Economic Review of the Northeast)* 6(4): 533-56.

Jackson, J.L. de Albuquerque and John H. Sanders, 1975. "Rendimento do Algodao Herbaceo em Funcao da Fertilidade Natural e Artificial dos Solos de Alagoas," ("Cotton Yields as a Function of Initial Fertility and Applied Fertilizer"), *Revista Economica do Nordeste, (Economic Review of the Northeast)* 6(2): 181-96.

Sanders, John H. and Richard C. Hoyt, 1970. "The World Food Problem: Four Recent Empirical Studies," *American Journal of Agricultural Economics* 52(1): 132-35.

Sanders, John H., 1969. "The Depressed Area and Labor Mobility: The Eastern Kentucky Case," *Journal of Human Resources* 4(4): 437-50.

### **Books and Book Chapters**

Sanders, John H., Botorou Ouendeba, and Ababacar Ndoeye, "Introducing New Technologies and Market Strategies for Sorghum Producers in Developing Countries: The Sahel Case," Submitted for Chap 20 in W. Rooney (Editor), *Achieving Sustainable Cultivation of Sorghum*, forthcoming, 20 pages.

Winslow M., Shapiro S. and Sanders J., 2007 "Policies, Institutions and Market Development to Accelerate Technological Change in the Semiarid Zones of Sub-Saharan Africa" in Andre Bationo, Boaz Waswa, Job Kihara and Joseph Kimetu, (ed), *Advances in integrated soil fertility management in sub Saharan Africa: challenges and opportunities*. Springer, Dordrecht, the Netherlands, pp. 929-936.

Sanders, John H., and Barry Shapiro. 2006. "Policies and Market Development to Accelerate Technological Change in the Semiarid Zones: A Focus on Sub-Saharan Africa." In Gary A. Peterson, Paul W. Unger, and William A. Payne, (ed), *Dryland Agriculture*, Agronomy Monograph No. 23, Second Edition. American Society of Agronomy, Inc. Crop Science Society of America, Inc. Soil Science Society of America, Inc. 677 South Segoe Road Madison, Wisconsin 53711. (879-900)

Sanders, John H., and Barry I. Shapiro, 2003. "Crop Technology Introduction in Semiarid West Africa: Performance and Future Strategy," in A. Shrestha (editor), *Cropping Systems, Trends and Advances*. Food Products press, Binghamton, NY, 559-592.

Sanders, John H., 2002. "Agricultural Development and Poverty Reduction in the Sahel." In Clemens Lutz (ed.), *Food Markets and Food Security in West Africa*, CDS Research Report No. 15, pp. 31-50. The Netherlands: Centre for Development Studies, University of Groningen.

Abdoulaye, Tahirou, and J.H. Sanders. 2002. "Farm-Level Profitability and Evolution of Input-Output Markets: Economic Perspective." In Proceedings, *West African Hybrid Sorghum and Pearl Millet Seed Workshop*, Sept. 28 – Oct. 2, 1998, Niamey, Niger. Lincoln, NE: INTSORMIL, Publication No. 0202, April 2002.

Shapiro, Barry I., and John H. Sanders. 2002. "Natural-Resource Technologies for Semiarid Regions of Sub-Saharan Africa," Ch. 20 in C.B. Barrett, F. Place, and A.A. Aboud(eds.), *Natural Resources Management in African Agriculture: Understanding and Improving Current Practices*. New York, NY: CABI Publishing, pp. 261-74.

Ahmed, Mohamed M., John H. Sanders, and Wilhelm T. Nell. 2001. "New Sorghum and Millet Cultivar Introduction in Sub-Saharan Africa: Impacts and Policy Implications." In I. Akintayo and J. Sedego (eds.), *Towards Sustainable Sorghum Production, Utilization, and Commercialization in West Central Africa*, proceedings of a technical workshop of the West and Central Africa Sorghum Research Network, pp. 283-295. Bamako, Mali: ICRISAT.

Sanders, John H., 2001. "The Economic Potential of the Agricultural Sector in the Sahel," in "*Energy Supply, Economic Pillars of Rural Sahelian Communities, Need for Revised Development Strategies*," Hanne Adriansen, Anette Reenberg, and Ivan Nielsen (eds.), proceedings, 12<sup>th</sup> Danish Sahel Workshop, Jan. 3-5. Copenhagen, Denmark: SERIEN (Sahel-Sudan Environmental Research Initiative), Occasional paper No. 11, pp. 39-51.

Sanders, John H., and Mohamed Ahmed. 2001. "Developing a Fertilizer Strategy for Sub-Saharan Africa," In W. A. Payne, D.R. Keeney, and S.C. Rao, (ed), *Sustainability of Agricultural Systems in Transition*, ASA Special Publication No. 64. Madison, WI: American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, pp. 173-184.

Sanders, John H., and Jeffrey D. Vitale, 1999. "Developing Technology for Agriculture in Sub-Saharan Africa: Evolution of Ideas and Some Critical Questions," in *Farm and Farmer Organization for Sustainable Agriculture in Africa*, proceedings of fourth biennial conference of the African Farm Management Association, Jan. 26-30, 1998, University of Stellenbosch, South Africa, pp. 102-115, Johann Laubscher (ed.) Harare, Zimbabwe, African Farm Management Association (AFMA).

Sanders, John H., 1999. "Availability and Adoption of Improved Technologies in the Semiarid and Subhumid Zones of West Africa," in *Linking Soil Fertility Management to Agricultural Input and Output Market Development: The Key to Sustainable Agriculture in West Africa*, Miscellaneous Fertilizer Studies No. 16, Siegfried K. Debrah and Willem G. Koster (eds.). Lomé, Togo: IFDC.

Sanders, John H., and Jeffrey D. Vitale, 1999. "Structural Adjustment and Technological Change in West African Cereal Production," in *Linking Soil Fertility Management to Agricultural Input and Output Market Development: The Key to Sustainable Agriculture in West Africa*, Miscellaneous Fertilizer Studies No. 16, Siegfried K. Debrah and Willem G. Koster (eds.). Lomé, Togo: IFDC.

Sanders, John H., and Jeffrey D. Vitale, 1998. "Technology Development for Traditional Cereals in the Sahelian Countries." In *Towards Sustainable Farming Systems in Sub-Saharan Africa*, Taye Bezuneh, S. Ouedraogo, J.M. Menyonga, J.-D. Zongo, and M. Ouedraogo (eds.), pp. 253-263. Scientific papers presented at the Second International Symposium of the African Association of Farming Systems Research, Extension, and Training held in Ouagadougou, Burkina Faso, Aug. 1996 Ouagadougou, Burkina Faso: AAFSRET Secretariat and OAU/STRC-SAFGRAD.

Sanders, John H., and Jeffrey D. Vitale, 1998. "Institutional and Economic Aspects of Fertilizer Use in West Africa: Experiences and Perspectives," keynote address, in Geneviève Renard, Andreas Neef, Klaus Becker, and Matthias von Oppen (eds.), *Soil Fertility Management in West African Land Use Systems*, proceedings of regional workshop, Niamey, Niger, Mar. 4-8, 1997, sponsored by University of Hohenheim, ICRISAT Sahelian Centre, and INRAN, Weikersheim, Germany: Margraf Verlag, pp. 407-416. .

Shapiro, B.I., and J.H. Sanders, 1998. "Fertilizer Use and Supportive Policy in Semiarid West Africa," in Geneviève Renard, Andreas Neef, Klaus Becker, and Matthias von Oppen (eds.), *Soil Fertility Management in*

*West African Land Use Systems Soil Fertility Management in West African Land Use Systems*, proceedings of regional workshop, Niamey, Niger, Mar. 4-8, 1997, sponsored by University of Hohenheim, ICRISAT Sahelian Centre, and INRAN, Weikersheim, Germany: Margraf Verlag, pp. 425-429. .

Sanders, John H., Sunder Ramaswamy, and Barry I. Shapiro, 1997. "Technology Development for Semiarid Sub-Saharan Africa: Theory, Performance and Constraints," in Roger Rose, Carolyn Tanner, and Margot A. Bellamy (eds.), *Issues in Agricultural Competitiveness: Markets and Policies*, IAAE Occasional Paper No. 7, pp. 415-424. Brookfield, VT: Ashgate Publishing Co.

Sanders, John H., Sunder Ramaswamy, and Barry I. Shapiro, 1997. "Technology Development for Semiarid Sub-Saharan Africa: Theory, Performance and Constraints." In Taye Bezuneh, A.M. Emechebe, J. Sedgo, and M. Ouedraogo (eds.), *Technology Options for Sustainable Agriculture in Sub-Saharan Africa*, pp. 19-27. Scientific papers presented at OAU/STRC-SAFGRAD regional workshop, Abidjan, Côte d'Ivoire, Apr. 1995. Ouagadougou, Burkina Faso: OAU/STRC-SAFGRAD, Semiarid Food Grain Research and Development.

Coulibaly, Ousmane N., and John H. Sanders, 1997. "Devaluation and New Technology Introduction in the Sudanian and Sudano-Guinean Zones of Mali." In Taye Bezuneh, A.M. Emechebe, J. Sedgo, and M. Ouedraogo (eds.), *Technology Options for Sustainable Agriculture in Sub-Saharan Africa*, pp. 57-84. Scientific papers presented at OAU/STRC-SAFGRAD regional workshop, Abidjan, Côte d'Ivoire, Apr. 1995. Ouagadougou, Burkina Faso: OAU/STRC-SAFGRAD, Semiarid Food Grain Research and Development.

Lee, John G., Douglas D. Southgate, and John H. Sanders, 1997. "Methods of Economic Assessment of On-Site and Off-Site Costs of Soil Degradation." In Rattan Lal, W.H. Blum, and C. Valentin (eds.), *Methods of Assessment of Soil Degradation*, pp. 475-494. Boca Raton, FL: CRC Press.

Sanders, John H., Barry I. Shapiro, and Sunder Ramaswamy, 1996. *The Economics of Agricultural Technology in Semiarid Sub-Saharan Africa*. Baltimore, MD: Johns Hopkins University Press.

Bezuneh, Taye, and John H. Sanders, 1995. "Research Orientation Towards the Needs of Cereal-Based Agro-industries," pp. 229-239. In J.M. Nenyonga, Taye Bezuneh, C.C. Nwasike, P.M. Sedego, and A. Tenkouano (eds.), *Processing and Industrial Utilization of Sorghum and Related Cereals in Africa*, Ouagadougou, Nov. 22-26, 1993. Ouagadougou, Burkina Faso: OAU/STRC-SAFGRAD Coordination Office, Semiarid Food Grain Research and Development.

Lovejoy, Stephen B., and John H. Sanders, 1994. "Resource Degradation and New Technologies: Success in West Africa," Ch. 11 in Ted L. Napier, Silvana M. Camboni, and Samir A. El-Swaify (eds.), *Adopting Conservation on the Farm: An International Perspective on the Socioeconomics of Soil and Water Conservation*, proceedings of an international conference, Honolulu, HI, Oct. 1993. Ankeny, IA: Soil and Water Conservation Society, pp. 133-142.

Sanders, John H., 1994. "Agricultural Development," in Ruttan, V.W. (ed.), *Health and Sustainable Agricultural Development: Perspectives on Growth and Constraints*. Boulder, CO: Westview Press, pp. 107-114.

Sanders, John H., and João Carlos Garcia, 1994. "The Economics of Stress and Technology Development in the Sahel and the 'Cerrados' of Brazil," in Maranhville, J.W., V.C. Baligar, R.R. Duncan, and J.M. Yohe (eds.), *Proceedings of a Workshop on Adaptation of Plants to Soil Stresses*, Aug. 1993. Lincoln, NE: University of Nebraska, INTSORMIL Publication 94-2, pp. 28-50.

Sanders, John H., and Sunder Ramaswamy, 1993. "Impacts of New Technology in Burkina Faso and the Sudan: Implications for Future Technology Design," in Coughenour, C. Milton (ed.), *Proceedings of Workshop on Social Science Research and the CRSPs*, June 9-11, 1992. Lincoln, NE: INTSORMIL, University of Nebraska, Publication 93-3, pp. 244-265.

Shapiro, Barry I., Ousmane Coulibaly, and John H. Sanders, 1992. "Farm-Level Potential of Sorghum/Millet Research in Semi-Arid West Africa," in T. Schilling and D. Stoner (eds.), *Proceedings, International Sorghum*

and Millet CRSP Conference, July 8-12, 1991, Corpus Christi, TX. Lincoln, NE: INTSORMIL Management Entity Office, University of Nebraska, Publication No. 92-1, pp. 61-72.

Ahmed, Mohamed M., and John H. Sanders, 1992. "The Economic Impacts of Hageen Dura-1 in the Gezira Scheme, Sudan," in T. Schilling and D. Stoner (eds.), *Proceedings, International Sorghum and Millet CRSP Conference*, July 8-12, 1991, Corpus Christi, TX. Lincoln, NE: INTSORMIL Management Entity Office, University of Nebraska, Publication No. 92-1, pp. 73-84.

López-Pereira, Miguel A., David Gonzalez-Rey, and John H. Sanders, 1992. "The Impacts of New Sorghum Cultivars and Other Associated Technologies in Honduras," in T. Schilling and D. Stoner (eds.), *Proceedings, International Sorghum and Millet CRSP Conference*, July 8-12, 1991, Corpus Christi, TX. Lincoln, NE: INTSORMIL Management Entity Office, University of Nebraska, Publication No. 92-1, pp. 85-96.

Deuson, R.R., and J.H. Sanders, 1990. "Technology Development and Agricultural Policy in the Sahel -- Burkina Faso and Niger." in P.W. Unger, W.R. Jordan, T.V. Sneed, and R.W. Jensen (eds.), *Challenges in Dryland Agriculture -- A Global Perspective*, Proceedings of the International Conference on Dryland Farming, Aug. 15-18, 1988. Amarillo, TX, pp. 610-613.

Nagy, J.G., J.H. Sanders, H.G. Ohm, and L.L. Ames, 1988. "Technology Development to Increase Cereal Production in the West African Semi-Arid Tropics," in J.M. Menyonga, T. Bezuneh, and A. Youdeowei (eds.), *Food Grain Production in Semi-Arid Africa*, Fourth Dimension Printing Services, Essex, United Kingdom, pp. 613-632.

Sanders, J.H., and Barry Shapiro, 1986. "Agricultural Technology Development in Burkina Faso," Chapter 12 in Y. Moses, ed., *Proceedings, African Agricultural Development: Technology, Ecology, and Society*, Pomona, California: California State Polytechnic University, pp. 95-97.

Lynam, John K., John H. Sanders, and Steven C. Mason, 1986. "Economics and Risk in Multiple Cropping," Chapter 11 in C. Francis, ed., *Multiple Cropping Systems*, MacMillan Publishing Co., Inc., New York, 1986. pp. 250-66.

Sanders, J.H., and M. Roth, 1985. "The Development and Evaluation of New Systems of Agricultural Production: Some Field and Model Results from Burkina Faso for Tied Ridges and Fertilization," in H.W. Ohm and J.G. Nagy, eds., *Appropriate Technologies for Farmers in Semi-Arid West Africa*, West Lafayette, Indiana: Purdue University, 1985. pp. 326-37.

Jaeger, W.K., and J.H. Sanders, 1985. "Profitability of Animal Traction: Field Study in Burkina Faso," in H.W. Ohm and J.G. Nagy, eds., *Appropriate Technologies for Farmers in Semi-Arid West Africa*, West Lafayette, Indiana: Purdue University, 1985. pp. 291-307.

Lang, Mahlon, Ron Cantrell, and John H. Sanders, 1984. "Identifying Constraints and Evaluating New Technology in the Purdue Farming Systems Project in Upper Volta," in C.B. Flora, ed., *Animals in the Farming System*, Manhattan, Kansas: Kansas State University, pp. 184-206.

Sanders, John H., and John K. Lynam, 1983. "Technology Change and Income Distribution in the Agriculture of Developing Countries: Some Issues and Strategies," in A. Maunder and K. Ohkawa, eds., *Growth and Equity in Agricultural Development*, Proceedings of the Eighteenth International Conference of Agricultural Economists held at Jakarta, Indonesia, Gower Publishing Co., Aldershot, Hampshire, England, pp. 470-78.

Sanders, John H., and John K. Lynam, 1982. "Nueva Tecnología para Pequeños Agricultores: Experiencias con Frijol y Yuca," ("New Technology for Small Farmers: Experience with Beans and Cassava,") in M. Elgueta G. and E. Venezian L., eds., *Economía y Organización de la Investigación Agropecuaria*, Chile Foundation, Santiago, pp. 241-59.

Londono, Norha R., Juliet W. Gathe, and John H. Sanders, 1981. "Bean Production Trends in Africa, 1966-1979. In *Regional Workshop on the Potential for Field Beans in Eastern Africa*, Lilongwe, Malawi. Proceedings: Centro Internacional de Agricultura Tropical, Cali, Colombia, pp. 19-29.

Sanders, John H., 1979. "New Agricultural Technology in the Brazilian Sertao," Chapter 13 in J.C. Ryan and H.L. Thompson, eds., *Socioeconomic Constraints to Development of Semi-Arid Tropical Agriculture*, Hyderabad, India: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), pp. 78-83.

Sanders, John H., and Antonio Dias de Hollanda, 1979. "Technology Design for Semi-Arid Northeast Brazil," Chapter 7 in Alberto Valdes, Grant M. Scobie, and John L. Dillon, eds., *Economics and the Design of Small Farmer Technology*, Ames: Iowa State University Press, pp. 102-11. Also published in Portuguese as Chapter 5 in SUDENE/Banco Mundial, *Modelos Matematicos Aplicados ao Planejamento Agricola*, Recife, 1976. pp. 53-77.

Schwartz, Howard F., and John H. Sanders, 1979. "Plant Diseases of Dry Beans (*Phaseolus vulgaris* L.) in Latin America and Strategies for Their Control," Chapter 11 in H. Maraitte and J.A. Meyer, eds., *Diseases of Tropical Food Crops*, Universite Catholique de Louvain, Louvain-La-Neuve, Belgium, pp. 179-89.

Sanders, John H., and Howard Schwartz, 1979. "Bean Production and Pest Constraints in Latin America," Chapter 1 in Howard F. Schwartz and Guillermo E. Galvez, eds., *Bean Production Problems: Disease, Insect, Soil, and Climatic Constraints on Phaseolus vulgaris*, CIAT-Series 09EB-1, pp. 3-14.

Sanders, John H., and Vernon W. Ruttan, 1978. "Biased Choice of Technology in Brazilian Agriculture," Chapter 10 in Hans P. Binswanger, Vernon W. Ruttan, et al., eds., *Induced Innovation: Technology, Institutions and Development*, Baltimore: The Johns Hopkins University Press, pp. 279-96.

### **Bulletins and Staff Papers**

Sanders, J.H., B. Ouendeba, A. Ndoeye, S. Traore and N. Teme, 2016. *Development of Sorghum and Millet Production Systems in Mali and Burkina Faso*, final report to the Gates Foundation, Department of Agricultural Economics, Purdue University, West Laf., In. 138 pages.

Ouendeba, B., T. Niaba, and J. H. Sanders, Mai 2013, *Fiche de Production et de Commercialisation de Sorgho Grinkan*, Production-Marketing Project of INTSORMIL, Purdue University, Department of Agricultural Economics, West Lafayette, IN

Coulibaly, Jeanne, Gautam Kumaraswamy and John H. Sanders, *Economic Impact of Sorghum and Millet Technologies in Mali Agricultural Campaign, 2010-11*, Bulletin IER-INTSORMIL n° 11, Purdue University, Department of Agricultural Economics, February 2013, 31 pages.

Ibrahim, Abdoulaye, John H, Sanders, et Ouendeba Botorou, *La Performance Economique de l'Adoption des Nouvelles Technologies de Sorgho au Burkina Faso, Campagne Agricole 2010-2011*, INTSORMIL Bulletin No 13, Department of Agricultural Economics, Purdue University, forthcoming February 2013, 37 pages.

Ibrahim, Abdoulaye Djido, John H. Sanders, and Botorou Ouendeba, *The Economic Impact of New Sorghum and Millet Technology Adoption in Niger: Performance and Challenges, 2010-2011 Cropping Year*, INTSORMIL Bulletin No. 12, Department of Agricultural Economics, Purdue University, July 2012, 42 pages.

Villacis, Alexis and John H. Sanders, *Rentabilidad de la introduccion de nuevas variedades de sorgo del CENTA en la industria lechera de El Salvador*, CENTA (Centro Nacional de Tecnologia Agropecuaria y Forestal) and MAG (Ministerio de Agricultura y Ganaderia), San Salvador, El Salvador, Junio 2012, 34 pages.

Sanders, John H. and Hassan Serghini, 2003. "Impacts of IFPRI/CARDA Policy and Property Rights Research on the Mashreq and Maghreb Project," Impact Assessment Discussion Paper No. 19, Washington, DC; International Food Policy Research Institute, 62 pages, October.

Ouendeba, Botorou, Tahirou Abdoulaye, and John H. Sanders, 2003. "Production and Marketing Strategies: Concept Paper 1," in *Market Improvements and New Food Crop Technologies in the Sahel*. IGAD/INTSORMIL/USAID-REDSO. Lincoln, NE: INTSORMIL, University of Nebraska.

Ouendeba, Botorou, Tahirou Abdoulaye, and John H. Sanders, 2003. "Impact of Technology and Marketing Strategies on Farmers' Incomes: Progress Report 1," in *Market Improvements and New Food Crop Technologies in the Sahel*. IGAD/INTSORMIL/USAID-REDSO. Lincoln, NE: INTSORMIL, University of Nebraska.

Sanders, John H., and Della E. McMillan, 2001. *Agricultural Technology for the Semiarid African Horn. Vol. 1: Regional Synthesis*. IGAD/INTSORMIL/USAID-REDSO. Lincoln, NE: INTSORMIL, University of Nebraska.

Sanders, John H., and Della E. McMillan, 2001. *Agricultural Technology for the Semiarid African Horn. Vol. 2: Country Studies: Djibouti, Eritrea, Ethiopia, Kenya, Sudan, and Uganda*. IGAD/INTSORMIL/USAID-REDSO. Lincoln, NE: INTSORMIL, University of Nebraska.

Sanders, John H., and Ridley Nelson, 1999. "Burkina Faso Agricultural Research Project and Agricultural Services Project," Performance Audit Report, World Bank, Operations Evaluation Dept., June 24.

Sanders, John H., and Mohamed Ahmed, 1999. "Developing a Fertilizer Strategy for Sub-Saharan Africa." *World Vision Food Security Program Newsletter, Jan.-Apr.*, 11-16.

Miller, Fred, Limamoulaye Cisse, Ellen Hanak-Freud, and John Sanders, 1996. *Report of the Center Commissioned External Review (CCER) of the ICRISAT Western and Central Africa (WCA) Region*. Patancheru, Andhra Pradesh, India: ICRISAT.

Jenkins, Graham, Frederick Miller, Fredrick Muchena, and John H. Sanders, 1996. *Report of Center Commissioned External Review of ICRISAT Southern and Eastern Africa*. Patancheru, Andhra Pradesh, India: ICRISAT.

Anandajayasekeram, P., D.R. Martella, J. Sanders, and B. Kupfuma, 1995. *Report on the Impact Assessment of the SADC/ICRISAT Sorghum and Millet Improvement Program*, Vol. I. Gaborone, Botswana: Southern African Centre for Cooperation in Agricultural & Natural Resources Research and Training (SACCAR).

Sanders, John H., Douglas D. Southgate, and John G. Lee, 1995. *The Economics of Soil Degradation: Technological Change and Policy Alternatives*, SMSS Technical Monograph No. 22 prepared for USAID Soil Management Support Services by Purdue University, Dept. of Agricultural Economics, West Lafayette, IN 47907-1145.

Sanders, John H., Taye Bezuneh, and Alan C. Schroeder, 1994. *Impact Assessment of the SAFGRAD Commodity Networks*, sponsored by USAID/AFR and OAU/STRC-SAFGRAD. West Lafayette, IN: Purdue University, Dept. of Agricultural Economics.

Task Force Report of the Board for International Food and Agricultural Development (BIFAD), Feb. 1988. *Environment and Natural Resources: Strategies for Sustainable Agriculture*. By Gerald W. Thomas, chairman; Ernest D. Ables, Robert O. Blake, Jerry D. Doll, Hugh Popenoe, **John H. Sanders**, Richard A. Skok, and John M. Yohe. Occasional Paper No. 12, Agency for International Development, Washington, DC 20523, 41 pp.

Sanders, John H., Peter Wright, Pierre Granier, and Kimseyinga Savadogo, 1987. *Resource Management and New Technologies in Burkina Faso for a Stable Agricultural Development*, Final Report to the West African Division of the World Bank.

Nagy, Joseph G., John H. Sanders, and Herbert W. Ohm, 1987. *Cereal Technology Development - West African Semi-Arid Tropics: A Farming Systems Perspective*, End-of-Project Report, International Programs in Agriculture, Purdue University, West Lafayette, Indiana.

Roth, M., P. Abbott, J. Sanders, and L. McKinzie, 1986. *An Application of Whole Farm Modelling to New Technology Evaluation, Central Mossi Plateau, Burkina Faso*, International Programs in Agriculture, Purdue University, West Lafayette, Indiana.

Sanders, John H., Jerome H. Maner, Daniel R. Gross, and Jose de Souza, 1986. "An Evaluation of the Center of Agricultural Sciences of the Federal University of Ceara - Northeast Brazil," A Report to USAID.

Gardiner, J. Corby, John H. Sanders, and Timothy G. Baker, 1986. *An Economic Evaluation of the Purdue Soft Red Winter Wheat Program*, Station Bulletin No. 506, Department of Agricultural Economics, Purdue University, West Lafayette, Indiana.

Roth, Michael, and John H. Sanders, 1984. *An Economic Evaluation of Selected Agricultural Technologies with Implications for Development Strategies in Burkina Faso*, International Programs in Agriculture, Purdue University, West Lafayette, Indiana.

Sanders, J.H., 1982. "Ensino, Pesquisa e Extensao: O Modelo 'Land Grant' na Universidades Americanas e a sua Aplicacao na Universidade de Evora," ("Teaching, Research, and Extension: The Land Grant Model in American Universities and its Application at the University of Evora"), *Extensao Rural*, Universidade de Evora, Portugal, pp. 2, 3.

Sanders, John H., 1970. *Income Maintenance Programs and Rural Poverty*, Bulletin No. 533, Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota, 3 pages.

Sanders, John H., and Vernon W. Ruttan, 1969. *Another Look at the World Food Problem*, Bulletin No. 515, Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota, 3 pages.

#### Field Bean and Technology Reports:

Sanders, John H., 1976-1982. "Bean Economics," *Annual Reports*, CIAT, Cali, Colombia, 8 to 20 pages each year in these annual published summaries of research results.

Sanders, John H., and Camilo P. Alvarez, 1978. *Evolucion de la Produccion de Frijol em America Latina Durante la Ultima Decada (Evolution of Bean Production in Latin America During the Last Decade)*, CIAT-Series 068B-1, Cali, Colombia, 48 pages.

de Londono, Norha Ruiz, Per Pinstrup-Andersen, John H. Sanders, and Mario A. Infante, 1978. *Factores que Limitan la Productividad de Frijol em Colombia, (Factors Limiting Field Bean Yields in Colombia)*, CIAT-Series 068B-2, Cali, Colombia, 44 pages.

Alvarado, Leopoldo, and John H. Sanders, 1977. "Análisis Económico de los Experimentos de PROYF con Frijol en Postrera, Honduras, 1976." ("Economic Analysis of the Experiments of PROMYF with Field Beans in the Second Season, Honduras, 1976"), published by the Ministry of Agriculture of Honduras, 51 pages.

de Lyra, H.J. Abdon, Antonio Rodriguez Barbosa, and John H. Sanders, 1976. *Opcoes Tecnologicas para a Regiao Semi-Arida do Rio Grande do Norte, (Technology Options for the Semi-Arid Region of Rio Grande do Norte)*, Comissao Estadual de Planejamento Agricola do Rio Grande do Norte, published by the State Planning Commission for Agriculture of the State of Rio Grande do Norte, Brasil, Publicacao 04, Natal, Rio Grande do Norte, 56 pages.

#### **Agricultural Policy Papers:**

Sanders, John H., and Arley D. Waldo, 1972. "Benefit-Cost Analysis of Income Maintenance Proposals," Staff Paper No. 72-19, University of Minnesota, St. Paul, 24 pages.

Ruttan, Vernon W. and John H. Sanders, 1968. *Surplus Capacity in American Agriculture*, Department of Agricultural Economics, University of Minnesota, Special Report No. 28, 27 pages.

**Book Reviews:**

Sanders, John H., 2001. "Another World Food Scare?" Review of John Manning, *"Food's Frontier: The Next Green Revolution."* North Point, NY: Farrar, Straus and Giroux, 2000. *Science* 291:1707-1708

**Theses:**

Sanders, John H., 1973, "Mechanization and Employment in Brazilian Agriculture, 1950-1971. " Unpublished Ph.D. thesis, University of Minnesota.

Sanders, John H., 1967. "Some Aspects of the Economics of Return Migration: With Reference to the Eastern Kentucky Coal Fields," Unpublished M.S. thesis, University of Kentucky.