

Adamchuk, V.I. and P.T. Christenson. 2007. An instrumented blade system for mapping soil mechanical resistance represented as a second-order polynomial. *Soil Tillage and Research* 95(1): 76-83.

Adamchuk, V.I., E.D. Lund, T.M. Reed, and R.B. Ferguson 2007. Evaluation of on-the-go technology for soil pH mapping. *J. Prec. Ag.* 8: 139-149

Adamchuk, V.I., D.B. Marx, A.T. Kerby, A.L. Samal, L.K. Soh, R.B. Ferguson, and C.S. Wortmann. 2007. Guided soil sampling for enhanced analysis of georeferenced sensor-based data. In: U. Demsar, ed. Proceedings of the Ninth International Conference on Geocomputation 2007 Conference, Maynooth, Ireland, 3-5 September 2007. National University of Ireland.

Adamchuk, V.I., R.M. Hoy, G.E. Meyer, and M.F. Kocher. 2007. GPS-based auto-guidance test program development. In: *Precision Agriculture: Papers from the Sixth European Conference on Precision Agriculture*, Skiathos, Greece, 3-6 June 2007, 425-432. J. Stafford, ed. Wageningen, The Netherlands: Wageningen Academic Publishers.

Bajwa, S. G., and E. D. Vories. 2007. Spatial analysis of cotton canopy response to irrigation in a moderately humid area. *Irrigation Science* 25(4): 429-441.

Bajwa, S. G., and M. Mozaffari. 2007. Effect of N treatments on vegetative index of cotton canopy – A spatial regression approach. *Transactions of the ASABE* 50(5):1883-1892.

Balasundram, S.K., D. J. Mulla and P. C. Robert. 2007. Spatial data calibration for site-specific phosphorus management. *International Journal of Agricultural Research* 2:888-899.

Bogrekci, I., and W. S. Lee. 2007. Comparison of ultraviolet, visible, and near infrared sensing for soil phosphorus. *Biosystems Engineering* 96(2): 293-299.

Boomsma, C.R., and T.J. Vyn. 2007. Plant-to-Plant Uniformity is Essential for Optimum Yield in No-Till Continuous Corn. *Purdue Extension AY-329-W.*

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.

Chinchuluun, R., W. S. Lee, and R. Ehsani. 2007. Citrus yield mapping system on a canopy shake and catch harvester. ASABE Paper No. 073050. St. Joseph, Mich.: ASABE.

Cohen, M. J., R. Mylavarapu, I. Bogrekci, W. S. Lee, and M. W. Clark. 2007. Reflectance Spectroscopy for Routine Agronomic Soil Analyses. *Soil Science* 172(6): 469-485.

Cugati, S.A., W.M. Miller, J.K. Schueller, A.W. Schumann, S. Buchanon, and H.K. Hostler. 2007. Benchmarking of dynamic performance of two commercial variable-rate controllers and components. *Transactions of the ASABE.* 50(3):795-802.

Ferguson, R.B., T. Kyaw, V.I. Adamchuk, D.D. Tarkalson, and D.L. McCallister. 2007. Site-specific management of pH-induced iron chlorosis of maize. In: J. Stafford (ed). *Precision Agriculture: Proceedings of the 6th European Conference on Precision Agriculture*, Siakthos, Greece, 3-6 June 2007. pp 151-156. Wageningen Academic Publishers.

Griffin, T.W., Craig Dobbins and J. Lowenberg-DeBoer, "Spatial analysis of On-farm Experiments and Subsequent Farm Management Decision Making: A Case Study," Selected Paper, American Agricultural Economics Association Annual Meeting, Portland, OR., USA, July, 2007 (http://agecon.lib.umn.edu/cgi-bin/pdf_view.pl?paperid=26241&ftype=.pdf).

Grigera, M.S., R.A. Drijber, K.M. Eskridge, and B.J. Wienhold. 2006. Soil microbial biomass relationships with organic matter fractions in a Nebraska corn field mapped using apparent electrical conductivity. *Soil Science Society of America Journal* 70:1480-1488.

Grigera, M.S., R.A. Drijber, and B.J. Wienhold. 2007. Redistribution of crop residues during row cultivation creates a biologically enhanced environment for soil microorganisms. *Soil and Tillage Research* 94:550-554.

Grigera, M.S., R.A. Drijber, and B.J. Wienhold. 2007. Increased abundance of arbuscular mycorrhizal fungi in soil coincides with the reproductive stages of maize. *Soil Biology and Biochemistry* 39:1401-1409.

Grigera, M.S., Drijber, R.A., Shores-Morrow, R.H., and Wienhold, B.J. 2007. Distribution of Arbuscular Mycorrhizal Biomarker C16:1*cis*17 Among Neutral-, Glyco-, and Phospho-Lipids Extracted from Soil During the Reproductive Growth of Corn. *Soil Biol. Biochem.* 39:1589-1596.

Hager, B.R., S. Brantley, J. Bloxham, R. Eisner, A. Goetz, C.J. **Johannsen**, J. Kirchner, W. Rose, H. Shah, D. Smit, H. Zebker and M. Zuber. 2007. Solid-Earth Hazards, Natural Resources, and Dynamics, Earth Science Systems, Chapter 8, *In* Andres, R.A., B. Moore III, et al. (Editors), *Earth Science and Applications from Space: National Imperatives for the Next Decade and Beyond*, pp 217-255, National Research Council, National Academy Press, Washington, DC.

Hemmat, A., V.I. Adamchuk, and P. Jasa. 2007. On-the-go soil strength sensing using an instrumented disc couler. In: *Proceedings of the International Agricultural Engineering Conference (IAEC-2007)*, Bangkok, Thailand, 3-6 December, 2007. Pathumthani, Thailand: Asian Association for Agricultural Engineering (CD publication, 8 pages).

Huang, X., S. Senthilkumar, A. Kravchenko, K. Thelen, and J. Qi. 2007. Total carbon mapping in glacial till soils using Near Infrared Spectroscopy, Landsat Imagery, and topographical information. *Geoderma* 141:34-42.

Kane, K. E., and W. S. Lee. 2007. Multispectral imaging for in-field green citrus identification. ASABE Paper No. 073025. St. Joseph, Mich.: ASABE.

Lambert, D.M., J. Lowenberg-DeBoer, and G. Malzer, "Managing Phosphorous Soil Dynamics over Space and Time," *Agricultural Economics* 37 (2007), p. 43-53.

Lee, K.H., M. R. Ehsani, and J.K. Schueller. 2007. Forward Movement Synchronization of Two Vehicles in Parallel Using A Laser Scanner. *Journal of the Applied Engineering in Agriculture*. 23(6): 827-834.

Miao, Y., D. J. Mulla, G. W. Randall, J. A. Vetsch and R. Vintila. 2007a. Predicting chlorophyll meter readings with aerial hyperspectral remote sensing for in-season site-specific nitrogen management of corn. pp. 635-641. In: J. V. Stafford (ed.), *Precision Agriculture '07*. Wageningen Acad. Publ. The Netherlands.

Miao, Y., D. J. Mulla, J. A. Hernandez, M. Wiebers and P. C. Robert. 2007b. Potential impact of precision nitrogen management on corn yield, protein content and test weight. *SSSAJ* 71:1490-1499.

Nistor, Adela and J. Lowenberg-DeBoer, "Drainage Water Management Impact on Farm Profitability," *Journal of Soil and Water Conservation*, Nov./Dec. 2007, 62:6, p. 443-446.

Okamoto, H., W. S. Lee, and K. E. Kane. 2007. Hyperspectral imaging for green citrus fruit detection. 6th European Conference in Precision Agriculture and 2nd European Conference on

Precision Livestock Farming, June 3-6, 2007, Skiathos, Greece.

Pantaleoni, E., B.A. Engel and C.J. **Johannsen**. 2007. Identifying Agricultural Flood Damage Using Landsat Imagery. *Journal of Precision Agriculture*, Vol. 8:27-36.

Robertson, G. P., L. W. Burger Jr., C. L. Kling, R. Lowrance and D. J. Mulla. 2007. New approaches to environmental management research at landscape and watershed scales. pp. 27-50. In: (M. Schnepf and C. Cox, eds.), *Managing Agricultural Landscapes for Environmental Quality*. Soil and Water Conservation Society. Ankeny, IA.

Schueller, J.K. 2007. Intelligente Landtechnik in den USA. Forschung für intelligente Landtechnik. (Festveranstaltung zur Emeritierung von Prof. Dr. Dr. habil. Hermann Auernhammer.) VDI-Seminare am Wissenschaftszentrum. Technischen Universität München. Munich. July 19.

Sripada, R.P., D.C. Farrer, R. Weisz, R.W. Heiniger, and J.G. White. Aerial color infrared photography to optimize in-season nitrogen fertilizer recommendations in winter wheat. *Agron. J.* 99:1424-1435.

Smith, D.R., P.R. Owens, A.B. Leytem and E.A. Warnemuende. 2007. Nutrient losses from manure and fertilizer applications as impacted by time to first runoff event. *Environmental Pollution*.147:131-137.

Solari, F., J. Shanahan, R. Ferguson, J. Schepers and A.A. Gitelson. 2007. Active sensor reflectance measurements of corn nitrogen status and yield potential. *Agron. J.* (in-press).

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 (Aug., 2007), p. 4-12.

Varvel, G.E., W.W. Wilhelm, J.F. Shanahan, and J.S. Schepers. 2007. An algorithm for corn nitrogen recommendations using a chlorophyll meter based sufficiency index *Agron. J.* 99:701-706.

Varvel, G.E., W.W. Wilhelm, J.F. Shanahan, and J.S. Schepers. 2007. Nitrogen fertilizer applications for corn based N sufficiency index calculations. *Agron. J.* 99: 701-706.

Weisz, R., R.P. Sripada, R.W. Heiniger, J.G. White, and D.C. Farrer. 2007 In-season tissue testing to optimize soft red winter wheat nitrogen fertilizer rates: Influence of biomass. *Agron. J.* 99:511-520.

Williams, J.D., C.R. Crozier, J.G. White, R.W. Heiniger, R.P. Sripada, and D.A. Crouse. 2007. Illinois soil nitrogen test predicts southeastern U.S. corn economic optimum nitrogen rates. *Soil Sci. Soc. Am. J.* 71: 735-744.

Whipker, Linda and Jay Akridge. "A Midwestern Precision Update." *CropLife*. June 2007, pp 10-14.

Whipker, Linda and Jay Akridge. "Biofuels: Future Challenges and Opportunities." *CropLife*. June 2007, pp 16-18.

