

## **Richard B. Ferguson**

University of Nebraska – Department of Agronomy & Horticulture  
Lincoln, NE 68583-0724  
402-472-1144  
rferguson@unl.edu

### **Degrees Received:**

- 1985 PhD in Agronomy, Kansas State University, Manhattan, KS
- 1981 MS in Agronomy, Kansas State University, Manhattan, KS
- 1976 BS in Biology/Chemistry, Friends University, Wichita, KS

### **Professional Positions Held:**

- 2012 - Associate Head, Dept. of Agronomy & Horticulture, University of Nebraska-Lincoln
- 2011 - 2012 Project Coordinator, Dept. of Agronomy & Horticulture, University of Nebraska-Lincoln
- 2004 - Professor-In-Charge, South Central Agricultural Laboratory, University of Nebraska-Lincoln
- 2004-2006 Administrative Intern, Agricultural Research Division, University of Nebraska-Lincoln, Lincoln, NE.
- 2000-2001 Visiting Scientist, Silsoe Research Institute, Silsoe, United Kingdom.
- 1999 - Professor, Dept. of Agronomy & Horticulture, University of Nebraska-Lincoln, Lincoln, NE.
- 1991-1999 Associate Professor, Dept. of Agronomy & Horticulture, University of Nebraska-Lincoln, Lincoln, NE.
- 1985-1991 Assistant Professor, Dept. of Agronomy, University of Nebraska-Lincoln, Lincoln, NE.
- 1979-1985 Research Assistant, Dept. of Agronomy, Kansas State University, Manhattan, KS.

### **Memberships:**

- American Society of Agronomy
- Soil Science Society of America
- Gamma Sigma Delta
- Nebraska Cooperative Extension Association
- Epsilon Sigma Phi
- Nebraska Agricultural Technologies Association

### **Honors and Awards:**

- 2011 Fellow, American Society of Agronomy
- 2010 Werner L. Nelson Award for Diagnosis of Yield Limiting Factors – American Society of Agronomy.
- 2007 American Society of Agronomy, Extension Educational Materials Award – Publications.
- 2005 Water Guardian Award, Mid-America CropLife Association.
- 2001 American Society of Agronomy, Extension Educational Materials Award – Publications > 16 pgs.
- 2001 American Society of Agronomy, Extension Educational Materials Award – Publications < 16 pgs.
- 2000 OECD Fellowship – Visiting Scientist to Silsoe Research Institute, United Kingdom
- 1999 American Society of Agricultural Engineers Blue Ribbon Award, Educational Aids Competition.
- 1998 American Society of Agronomy, Extension Educational Materials Award – Publications > 16 pgs.
- 1996 IANR Cooperative Ext. Excellence in Team Programming Award - Nitrogen/Irrigation Initiative.
- 1995 IANR Team Award - Mid-Nebraska Water Quality Demonstration Project - Project Leader.

- 1991 American Society of Agricultural Engineers Blue Ribbon Award, Educational Aids Competition.
- 1987 "Unit Award for Superior Service", USDA.
- 1986 "Excellence in Programming" Award, Cooperative Extension Service, UNL.

**Grants Received:**

From 1986 through 2012, recipient of \$9,506,000 in grants from federal and state agencies, Natural Resources Districts, and industry sources as either principle or co-investigator. Of this total, approximately \$5.2 million has been for research projects, and approximately \$4.3 million has been for Extension projects.

**Teaching Experience:**

- 2006 - AGRO/MSYM/AGEN 431 – *Site-Specific Crop Management*. Senior level course, fall semesters.
- 2005 - AGRO 831 – *Spatial Variability in Soils*. Distance education graduate course, taught spring semester, even-numbered years.

**International Experience:**

- 2012 Host of visiting Professors Cailian Yu, Harbin University of Science and Technology, Harbin, China, and Anyu Su, Northeast Agricultural University, Harbin, China, and Mahdi Aoda, University of Baghdad, Baghdad, Iraq.
- 2011 Host of Professor Xianlong Peng, visiting Scientist, Northeast Agricultural University, Harbin, China
- 2011 Consulting scientist, Druzhba-Nova, Varva, Ukraine
- 2010 Visiting scientist, Northeast Agricultural University, Harbin, China
- 2009 Host of Professor Yuanying Liu, visiting scientist from Northeast Agricultural University, Harbin, China
- 2002 Advisor to World Vision, Ghana
- 2000-2001 Visiting scientist, Silsoe Research Institute, Silsoe, UK
- 1997 - Speaker and session moderator, European Conference on Precision Agriculture; UK, Denmark, Sweden, Greece, Czech Republic

**Administrative and Leadership Experience**

- 2011 Chair, Graduate Committee, Dept. of Agronomy & Horticulture
- 2010 Chair, Planning Committee, North Central Extension-Industry Soil Fertility Conference
- 2009 Chair, Review Panel, Central Great Plains Research Station, USDA-ARS, Akron, CO
- 2008 Past Chair, Division S-8, Nutrient Management & Soil & Plant Analysis, Soil Science Society of America
- 2007 Chair, Division S-8, Nutrient Management & Soil & Plant Analysis, Soil Science Society of America
- 2006 -2008 Chair, Promotion and Tenure Committee, Dept. of Agronomy & Horticulture
- 2006 -2008 Chair, NCERA-103, North Central Committee on Specialized Soil Amendments & Products, Growth Stimulants and Soil Fertility Management Programs (Nebraska representative since 1999)
- 2006 -2008 Co-Leader, Integrated Crop Management sub-group of the Food Production and Natural Resource Systems Extension Action Team
- 2006 Incoming Chair, Division S-8, Nutrient Management and Soil & Plant Analysis, Soil Science Society of America

- 2005 Graduate, Class 14, ESCOP-ACOP (Experiment Station Committee on Organization & Policy-Academic Programs Committee on Organization & Policy) Leadership Development Program
- 2003 - Associate Editor, Journal of Precision Agriculture
- 2001 Initiated discussions that led to the formation of the Nebraska Agricultural Technologies Association
- 1997 – 1998 Chair, NCR-180, North Central Committee on Site-Specific Management (Nebraska representative from 1996 through 2011)
- 1990 – 1998 Team Leader, Mid-Nebraska Water Quality Demonstration Project

#### **University and Professional Society Citizenship**

- 2011 - Member, UNL Research Council
- 2011 Member, Selection Committee, Werner L. Nelson Award for Diagnosis of Yield Limiting Factors, American Society of Agronomy
- 2010- Member, Graduate Committee, Dept. of Agronomy & Horticulture
- 2008 Member, Selection Committee, Leo Walsh Distinguished Lectureship, Soil Science Society of America
- 2007 - IANR Facilities Committee – member
- 2007 Member, President Nominating Committee, Soil Science Society of America
- 2007 Member, Selection Committee, Leo Walsh Distinguished Lectureship, Soil Science Society of America
- 2005 – 2006 Chair, Agronomy & Horticulture Computing and Technologies Committee
- 2004 - Member, Agronomy & Horticulture Distance Education Committee
- 2005 Chair, Search Committee, Irrigated Cropping Systems Specialist, Agronomy & Horticulture
- 2002 – 2005 Member, IANR Nominating Committee
- 2004 Member, Agronomy & Horticulture Computing and Technologies Committee
- 2004 Member, Agronomy & Horticulture Soil & Plant Analysis Committee
- 2003 – 2005 Member, ASA-CSSA-SSSA Awards, Scholarships and Fellows Committee
- 2003 Associate Editor, Proceedings of the 6<sup>th</sup> International Conference on Precision Agriculture
- 2003 Member, Soil & Water Peer Evaluation Committee, Agronomy & Horticulture

#### **Publications:**

##### *Journal Articles*

- Djamman, K., S. Irmak, D. Martin, R. Ferguson, M. Bernards. 2013. Plant nutrient uptake and soil nutrient dynamics under full and limited irrigation and rainfed maize production. *Agron. J.* (in press).
- Torrion, J., J. Specht, T. Setiyano, K. Cassman, R. Ferguson and S. Irmak. 2012. Soybean root development relative to vegetative and reproductive phenology. *Agron. J.* 104:1702-1709
- Roberts, D.F., R.B. Ferguson, N.R. Kitchen, V.I. Adamchuk, and J.F. Shanahan. 2012. Relationships between soil-based management zones and canopy sensing for corn nitrogen management. *Agron. J.* 104:119-129.
- Adamchuk, V.I., A.S. Mat Su, R.A. Eigenberg, and R.B. Ferguson. 2011. Development of an angular scanning system for sensing vertical profiles of soil electrical conductivity. *Trans. of the ASABE* 54(3):1-11.

- Shiratsuchi, L., R. Ferguson, J. Shanahan, V. Adamchuk, D. Rundquist, D. Marx and G. Slater. 2011. Water and nitrogen effects on active canopy sensor vegetation indices. *Agron. J.* 103:1815-1826.
- Setiyono, T., K. Cassman, H. Yang, A. Dobermann, D. Roberts, R. Ferguson, D. Lyon. 2011. Maize-N: A decision tool for nitrogen management in maize. *Agron. J.* 103:1276-1283.
- Roberts, D.F., V.I. Adamchuk, J.F. Shanahan, R.B. Ferguson, J.S. Schepers. 2011. Estimation of surface soil organic matter using a ground-based active sensor and aerial imagery. *J. Precision Agriculture* 12:82-102.
- Wortmann, C.S., D.D. Tarkalson, C.A. Shapiro, A.R. Dobermann, R.B. Ferguson, G.W. Hergert, and D. Walters. 2010. Cropping system effect on nitrogen use efficiency of irrigated corn in Nebraska. *Agron. J.* 103:76-84.
- Dobermann, A., C.S. Wortmann, R.B. Ferguson, G.W. Hergert, C.A. Shapiro, D.D. Tarkalson, D. Walters. 2010. Nitrogen response and economics for irrigated corn in Nebraska. *Agron. J.* 103:67-75.
- Solari, F., J. Shanahan, R. Ferguson, V. Adamchuk. 2010. An active sensor algorithm for corn N recommendations based on a chlorophyll meter algorithm. *Agron. J.* 102:1090-1098.
- Wortmann, C.S., A.J. Liska, R.B. Ferguson, R.N. Klein, D.J. Lyon, I. Dweikat. 2010. Dryland performance of sweet sorghum and grain crops for biofuel in Nebraska. *Agron. J.* 102:319-326.
- Abunyewa, A.A., R.B. Ferguson, C.S. Wortmann, D.J. Lyon, S.C. Mason, R.N. Klein. 2010. Skip-row and plant population effects on sorghum grain yield. *Agron. J.* 102:296-302.
- Wortmann, C. A. Dobermann, R. Ferguson, G. Hergert, C. Shapiro, D. Tarkalson. 2009. High-yielding corn response to applied phosphorus, potassium, and sulfur in Nebraska. *Agron. J.* 101:546-555.
- Hodgen, P., J. Schepers, W. Raun, J. Shanahan and R. Ferguson. 2009. Uptake of point source depleted 15N fertilizer by neighboring corn plants. *Agron. J.* 101:99-105.
- Roberts, D.F., V.I. Adamchuk, J.F. Shanahan, R.B. Ferguson, and J.S. Schepers. 2009. Optimization of crop canopy sensor spacing for detecting nitrogen stress in corn. *Agron. J.* 101:226-231.
- Ping, J.L., R.B. Ferguson and A. Dobermann. 2008. Site-specific nitrogen and plant density management in irrigated maize. *Agron. J.* 100:1193-1204.
- Kyaw, T., R.B. Ferguson, V.I. Adamchuk, D.B. Marx, D.D. Tarkalson, and D.L. McCallister. 2008. Delineating site-specific management zones for pH-induced iron chlorosis. *J. Precision Agriculture* 9: 71-84.
- Paschold, J.S., B.J. Weinhold, R.B. Ferguson, and D.L. McCallister. 2008. Soil N and P availability is similar for field applied slurry from swine fed traditional and low phytate corn diets. *Soil Sci. Soc. Am. J.* 72:1096-1101.
- Paschold, J.S., B.J. Weinhold, D.L. McCallister, and R.B. Ferguson. 2008. Crop N and P utilization following application of slurry from swine fed traditional and low phytate corn diets. *Agron. J.* 100:997-1004.
- Solari F., J. Shanahan, R. Ferguson, J. Schepers and A.A. Gitelson. 2008. Active sensor reflectance measurements of corn nitrogen status and yield potential. *Agron. J.* 100:571-579.
- 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.
- Milne, A.E., R.B. Ferguson, and R.M. Lark. 2006. Estimating a boundary line model for a biological response by maximum likelihood. *Annals Appl. Biol.* 149:223-234.
- Eigenberg, Roger A., John A. Nienaber, Bryan L. Woodbury, and Richard B. Ferguson. 2006. Soil conductivity as a measure of soil and crop status – a four year summary. *Soil Sci. Soc. Am. J.* 70:1600-1611.
- Ferguson, R.B., J.A. Nienaber, R.A. Eigenberg, and B.L. Woodbury. 2005. Long-term effects of sustained beef feedlot manure application on soil nutrients, corn silage yield, and nutrient uptake. *Journal Series No. 14763. J. Environ. Qual.* 34:1672-1681.

- Dobermann, A, J.L. Ping, V.I. Adamchuk, and R.B. Ferguson. 2003. Classification of crop yield variability in irrigated production fields. Journal Series No. 14009. Agron. J. 95:1105-1120.
- Lark, R.M., and R.B. Ferguson 2004. Mapping risk of soil nutrient deficiency or excess by disjunctive and indicator kriging. Geoderma 18:39-53.
- Eigenberg, R.A., J.W. Doran, J.A. Nienaber, R.B. Ferguson, and B.L. Woodbury. 2002. Electrical conductivity monitoring of soil condition and available N with animal manure and a cover crop. Agric. Ecosystems & Environment 88:183-193.
- Pedersen, S.M., R.B. Ferguson, and R.M. Lark. 2001. A multinational survey of precision farming early adopters. Farm Mgmt. 11:147-162.
- Ferguson, R.B., R.M. Lark, and G.P. Slater. 2003. Approaches to management zone definition for use of nitrification inhibitors. Journal Series No. 13533. Soil Sci. Soc. Am. J. 67:937-947.
- Ferguson, R.B., G.W. Hergert, J.S. Schepers, C.A. Gotway, J.E. Cahoon, and T.A. Peterson. 2002. Site-specific nitrogen management of irrigated maize: yield and soil residual nitrate effects. Journal Series No. 13316. Soil Sci. Soc. Am. J. 66:544-553.
- Ferguson, R.B. 2002. Educational resources for precision agriculture. J. Precision Ag. 3:359-371.
- Schmidt, J.P, A.J. DeJoia, R.B. Ferguson, R.K. Taylor, R.K. Young, and J.L. Havlin. 2002. Corn yield response to nitrogen at multiple in-field locations. Agron. J. 94:798-806.
- Dielman, J.A., D. A. Mortensen, D. D. Buhler and R. B. Ferguson. 2000. Identifying associations among site properties and weed species abundance. II. Hypothesis generation. Journal Series No. 12555. J. Weed Science 48:576-587.
- Schepers, J.S., M.R. Schlemmer and R.B. Ferguson. 2000. Site-specific considerations for managing phosphorus. Journal Series No. 12637. J. Environ. Qual. 29:125-130.
- Cahoon, J.E., D.E. Eisenhauer, R.W. Elmore, F.W. Roeth, B. Douppnik, Jr., R.A. Selley, K. Frank, R.B. Ferguson, M. Lorenz, and L.J. Young. 1999. Corn Yield Response to Tillage With Furrow Irrigation. Journal Series No. 12134. J. Prod. Ag. 12:269-275.
- Elmore, R.W. and R.B. Ferguson. 1999. Mid-Season Stalk Breakage in Corn: Hybrid and Environmental Factors. Journal Series No. 12188. J. Prod. Ag. 12:293-299.
- Eghball, B., G.W. Hergert, G.W. Lesoing and R.B. Ferguson. 1998. Fractal Analysis of Spatial and Temporal Variability. Journal Series No. 12112. Geoderma 88:349-362.
- Katupitiya, A., D.E. Eisenhauer, R.B. Ferguson, F.W. Roeth, R.F. Spalding and M.W. Bobier. 1997. Long-term Tillage and Crop Rotation Effects on Residual Nitrate in the Crop Root Zone and Nitrate Accumulation in the Intermediate Vadose Zone. Journal Series No. 11622. Trans. ASAE 40(5):1321-1327.
- Murphy, Timothy L. and Richard B. Ferguson. 1997. Ridge-till Corn and Urea Hydrolysis Response to N-(n-butyl)thiophosphoric triamide (NBPT). Journal Series No. 11173. J. Prod. Ag.10:271-282.
- Gotway, Carol A., Richard B. Ferguson, Gary W. Hergert, and Todd A. Peterson. 1996. A Comparison of Kriging and Inverse-Distance Methods for Mapping Soil Parameters. Soil Sci. Soc. Am. J. 60:1237-1247.
- Cahoon, J.E. and R.B. Ferguson. 1995. A root zone water balance algorithm for educational settings. Journal Series No. 10693. J. Nat. Resour. Life Sci. Educ. 24:17-22
- Zara, P.M, R. Selley, J.E. Cahoon, and R. Ferguson. 1994. Simulating N leaching in furrow-irrigated corn. Journal Series No. 10542. Irrig. Sci. 15:167-172..
- Schepers, J.S., D.L. Martin, D.G. Watts, and R.B. Ferguson. 1991. Integrated water and nitrogen management. In *Nitrate Contamination*, NATO ASI Series Vol. G 30, ed. I. Bogardi and R.D. Kulzeka. Springer-Verlag, Berlin - Heidelberg.
- Slater, G.P., R.W. Elmore, B.L. Douppnik, and R.B. Ferguson. 1991. Soybean cultivar response to benomyl, nitrogen, phosphorus, and irrigation levels. Journal Series No. 9137. Agron. J. 83:804-809.

- Ferguson, R.B., J.S. Schepers, G.W. Hergert, and R.D. Lohry. 1991. Nitrogen uptake in corn (*Zea mays* L.) and accumulation in soil: Effects of nitrogen rate, nitrapyrin, and corn hybrid. Journal Series No. 9449. Soil Sci. Soc. Am. J. 55:875-880.
- Ferguson, R.B., C.A. Shapiro, G.W. Hergert, W.L. Kranz, N.L. Klocke, and D.H. Krull. 1991. Nitrogen and irrigation management practices to minimize nitrate leaching from irrigated corn (*Zea mays* L.). Journal Series No. 9183. J. Prod. Ag. 4:186-192.
- Ferguson, R.B., D.E. Eisenhauer, T.L Bockstadter, D.H. Krull, and G. Buttermore. 1990. Water and nitrogen management in central Platte valley of Nebraska. Journal Series No. 8861. J. Irr. Drain. Eng. 116:557-565.
- Schepers, J.S., D.D. Francis, R.B. Ferguson, and R.D. Lohry. 1990. Comparison of early season stem nitrate and leaf total nitrogen concentrations across corn hybrids. Journal Series. No. 9148. Comm. Soil Sci. Pl. Anal. 21:1381-1390.
- Ferguson, R.B., and M. Moravek. 1990. Groundwater quality management in Nebraska's central Platte valley. Journal Series. No. 9182. J. Soil Water Cons. 45:265-266.
- Ferguson, R.B., K.J. McInnes, D.E. Kissel, and E.T. Kanemasu. 1988. A comparison of methods of estimating ammonia volatilization in the field. J. Fert. Res. 15:55-69.
- Kissel, D.E., M.L. Cabrera, and R.B. Ferguson. 1988. Reactions of ammonia and urea hydrolysis products with soil. Soil Sci. Soc. Am. J. 52:1793-1796
- McInnes, K.J., R.B. Ferguson, D.E. Kissel, and E.T. Kanemasu. 1986. Field measurement of ammonia loss from surface applications of urea solution to bare soil. Agron. J. 78:192-196.
- McInnes, K.J., R.B. Ferguson, D.E. Kissel, and E.T. Kanemasu. 1986. Ammonia loss from applications of urea-ammonium nitrate solution to straw residue. Soil Sci. Soc. Am. J. 50:969-974.
- Ferguson, R.B. and D.E. Kissel. 1986. Effects of soil drying on ammonia volatilization from surface-applied urea. Soil Sci. Soc. Am. J. 50:485-490.
- Ferguson, R.B., D.E. Kissel, J.K. Koelliker, and Wes Basel. 1984. Ammonia volatilization from surface-applied urea: Effect of hydrogen ion buffering capacity. Soil Sci. Soc. Am. J. 48:578-582.
- Winter, K.T., D.A. Whitney, D.E. Kissel and R.B. Ferguson. 1981. Ammonia volatilization from lime urea ammonium nitrate suspensions before and after soil application. Soil Sci. Soc. Am. J. 45:1224-1228.

#### *Book Chapters*

- Sadler, E.J., W.C. Bausch, N.R. Fausey, and R.B. Ferguson. 2010. Water management: A key to reducing nitrogen losses. In: J.A. Delgado and R.F. Follett (ed.). *Advances in Nitrogen Management for Water Quality*. Soil and Water Conservation Society, pp. 38-60.
- Adamchuk, V.I., R.B. Ferguson, and G.W. Hergert. 2010. Soil heterogeneity and crop growth. In: Precision Crop Protection . the Challenge and Use of Heterogeneity, Chapter 1, 3-16, E.C. Oerke, R. Gerhards, G. Menz, and R.A. Sikora, etd. New York, New York: Springer.
- Ferguson, Richard B. and Gary W. Hergert. 1999. Sampling and Spatial Analysis Techniques for Quantifying Soil Map Unit Composition. in *D.L. Corwin, K. Loague and T.R. Ellsworth, (ed.)*. Application of GIS, Remote Sensing, Geostatistical and Solute Transport Modeling to the Assessment of Nonpoint Source Pollution in the Vadose Zone. American Geophysical Union. pp 79-91.
- Larson, W.E., J.A. Lamb, B.R. Khakural, R.B. Ferguson and G.W. Rehm. 1997. Potential of Site-Specific Management for Nonpoint Environmental Protection. in F.J. Pierce and E.J. Sadler, (ed.), *The State of Site-Specific Management for Agriculture*. ASA Misc. Publ. ASA, CSSA and SSSA, Madison, WI. pp. 337-367.

Eghball, Bahman, Richard B. Ferguson, Gary E. Varvel, Gary W. Hergert, Carol A. Gotway. 1997. Fractal Characterization of Spatial and Temporal Variability in Site-Specific and Long-Term Studies. in M.M. Novak, T.G. Dewey, (ed.), *Fractal Frontiers*. Publ. World Scientific - Singapore, New Jersey, London, Hong Kong. pp 339-348

#### *Refereed Proceedings*

Ferguson, R., J. Shanahan, D. Roberts, J. Schepers, F. Solari, V. Adamchuk, L. Shiratsuchi, B. Krienke, M. Schlemmer, D. Francis. 2011. In-season nitrogen management of irrigated maize using a crop canopy sensor. In J. Stafford (ed.): *Precision Agriculture 2011, Proceedings of the 8<sup>th</sup> European Conference on Precision Agriculture*, Prague, Czech Republic, 10-13 July, 2011. pp 503-513.

Adamchuk, V.L., A.K. Jonjak, C.S. Wortmann, R.B. Ferguson, C.A. Shapiro. 2011. Case studies on the accuracy of soil pH and lime requirement maps. In J. Stafford (ed.): *Precision Agriculture 2011, Proceedings of the 8<sup>th</sup> European Conference on Precision Agriculture*, Prague, Czech Republic, 10-13 July, 2011. pp 289-301.

Pan, L. V.L. Adamchuk, D.L. Martin, M.A. Schroeder, R.B. Ferguson. 2011. Combining on-the-go soil sensing and a wireless sensor network to increase irrigation water use efficiency. In J. Stafford (ed.): *Precision Agriculture 2011, Proceedings of the 8<sup>th</sup> European Conference on Precision Agriculture*, Prague, Czech Republic, 10-13 July, 2011. pp 459-468.

Adamchuk, V.T., D.B. Marx, A.T. Kerby, A.K. 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. MCG – National University of Ireland.

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.V. Stafford (ed.) *Precision Agriculture 07, Proceedings of the Sixth European Conference on Precision Agriculture*, Skiathos, Greece, 3-6 June, 2007. pp 151-156.

Hergert, G.W. and R.B. Ferguson. 1997. The Impact of Variable Rate N Application on N Use Efficiency of Furrow-Irrigated Maize. in J.V. Stafford, (ed.) *Precision Agriculture 97, Proceedings of the First European Conference on Precision Agriculture*, Warwick University Conference Centre, UK. September 7-10, 1997. pp 297 - 305.

Ferguson, R.B., G.W. Hergert and J.S. Schepers. 1997. Strategies for Site-Specific Nitrogen Management. in J.V. Stafford, (ed.) *Precision Agriculture 97, Proceedings of the First European Conference on Precision Agriculture*, Warwick University Conference Centre, UK. September 7-10, 1997. pp 387 - 395.

#### *Research Bulletins*

Pedersen, S.M., R.B. Ferguson, R.M. Lark. 2000. A Comparison of Producer Adoption of Precision Agricultural Practices in Denmark, the United Kingdom, and the United States. Silsoe Research Institute, Silsoe, Bedford, UK. Divisional Note 1671.



Pedersen, S.M., R.B. Ferguson, R.M. Lark. 2000. A Comparison of Producer Adoption of Precision Agricultural Practices in Denmark, the United Kingdom, and the United States. Statens Jordbrugs- og Fiskeriøkonomiske Institut (Danish Institute of Agricultural and Fisheries Economics). SJFI Working Paper 2/2001.

Pedersen, S.M., R.B. Ferguson, R.M. Lark. 2000. A Comparison of Producer Adoption of Precision Agricultural Practices in Denmark, the United Kingdom, and the United States. University of Nebraska. Research Bulletin 343.

#### *Extension Publications*

Wortmann, C., R. Ferguson, R. Klein, D. Lyon, S. Melvin. 2009. Skip-row planting of grain sorghum for improved drought tolerance. NebGuide G1976. University of Nebraska-Lincoln.

Ferguson, R.B. and G.W. Hergert. 2009. Soil Sampling for Precision Agriculture (revision). EC-154. University of Nebraska-Lincoln.

Shapiro, C.A., R.B. Ferguson, G.W. Hergert, C.S. Wortmann, and D.T. Walters. 2009. Fertilizer Suggestions for Corn. EC 117. University of Nebraska-Lincoln.

Ferguson, R.B., C.G. Henry, R.K. Koelsch, C.A. Shapiro, and C.S. Wortmann. 2007. Managing livestock manure to protect environmental quality. EC02-179, University of Nebraska-Lincoln.

Ferguson, R.B., G.W. Hergert, C.S. Shapiro, and C.S. Wortmann. 2007. Guidelines for Soil Sampling. NebGuide G1740. University of Nebraska-Lincoln.

Wortmann, C.S., A.R. Dobermann, R.B. Ferguson, G.W. Hergert, C.A. Shapiro, and D. Tarkalson. 2006. Fertilizer suggestions for grain sorghum. NebGuide G1669. University of Nebraska-Lincoln.

Wortmann, C.S., M. Al-Kaisi, M. Helmers, J. Sawyer, D. Devlin, C. Barden, P. Scharf, R. Ferguson, W. Kranz, C. Shapiro, R. Spalding, D. Tarkalson, J. Holz, D. Francis, and J. Schepers. 2006. Agricultural nitrogen management for water quality protection in the Midwest. RP 189. University of Nebraska-Lincoln.

Ferguson, R., A. Dobermann, and J. Schepers. 2006. Site-Specific Nitrogen Management for Irrigated Corn. EC-163. University of Nebraska-Lincoln.

Shapiro, Charles A., Richard B. Ferguson, Gary W. Hergert, Achim R. Dobermann, and Charles S. Wortmann. 2003. Fertilizer Suggestions for Corn. G74-174. University of Nebraska-Lincoln.

Ferguson, R.B., C.A. Shapiro, A.R. Dobermann, and C.S. Wortmann. 2003. Fertilizer Recommendations for Soybean. G87-859A. University of Nebraska Lincoln.

Reynolds, M.A. (ed.). B.L. Benham, R.B. Ferguson, C.G. Henry, M.A. Reynolds, C.A. Shapiro, J.P. Stack, C.S. Wortmann. Managing Livestock Manure to Protect Environmental Quality. EC 02-179

Ferguson, R.B., and G.W. Hergert. 2000. Soil Sampling for Precision Agriculture. EC 00-154, University of Nebraska-Lincoln.



Ferguson, R.B. (editor). 2000. Nutrient Management of Agronomic Crops in Nebraska. EC 01-155. University of Nebraska Lincoln.

Barnes, E., M. Reynolds, B. Steinshauer, K. Peterson, T. Weatherly, R. Ferguson, B. Benham and K. Noonan. 1998. Mid-Nebraska Demonstration Project 1997 Report: Field Demonstrations of Best Management Practices to Protect Groundwater Quality. SCREC-98/3, University of Nebraska-Lincoln.

Krull, D.H., and R.B. Ferguson. 1998. Platte Valley Nitrogen and Irrigation Management Demonstration Project: 1997 Report. SCREC-98/1, University of Nebraska-Lincoln.

Watts, D.G., D.R. Hay, D.A. Eigenberg, R.B. Ferguson, K.D. Frank, G.W. Hergert, C.A. Shapiro, B.L. Benham, W.L. Kranz, and C.D. Yonts. 1998. Managing Irrigation and Nitrogen to Protect Water Quality. EC98-786-S, University of Nebraska-Lincoln.

Barnes, E., M. Reynolds, B. Steinshauer, K. Peterson, D. Skalka, T. Weatherly, R. Ferguson and K. Noonan. 1997. Mid-Nebraska Demonstration Project 1996 Report: Field Demonstrations of Best Management Practices to Protect Groundwater Quality. SCREC-97/4, University of Nebraska-Lincoln.

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