

Thomas G. Franti
Associate Professor
Extension Surface Water Management Engineer
Department of Biological Systems Engineering
University of Nebraska-Lincoln

Education:

Purdue University; Ph.D. in Agricultural Engineering, December, 1987. Soil and water specialization. Study and research in modeling hydrology and hydraulics.
Iowa State University; M.S. in Agricultural Engineering with a Water Resources minor, May 1985. Civil and Agricultural Engineering courses in soil and water engineering.
University of Wisconsin-Madison; B.S. in Agricultural Engineering, May, 1983.
University of Wisconsin-River Falls; Pre-engineering, 1978-1980.

Professional Experience:

Associate Professor, University of Nebraska- Lincoln, Department of Biological Systems Engineering, Jan., 2015 to present; 57% Extension, 25% research, 15% teaching, and 3% service appointment.
Associate Professor, Department of Biological Systems Engineering, July, 1999 through 2014. Extension Specialist and Surface Water Management Engineer with 75% Extension education appointment and 25% research appointment.
Assistant Professor, Department of Biological Systems Engineering, University of Nebraska-Lincoln; Surface Water Management Engineer. Research and extension responsibilities in surface water quality, quantity and soil and water conservation. August, 1993 to 1999.
Project Manager, STS Consultants, Ltd., Green Bay, Wisconsin. Client liaison and project manager for a long-term engineering contract. Responsibilities included interoffice project coordination, client relations, supervising field personnel, project budgeting and scheduling, agency contacts, and project team leadership. December, 1991 - August, 1993.
Project Engineer, STS Consultants, Ltd., Green Bay, Wisconsin. Worked in Landfill Design Group with responsibilities that included proposal writing, landfill design, construction monitoring and documentation, budget management, and client maintenance. June 1990-December 1991.
Assistant Project Engineer, STS Consultants, Ltd., Green Bay, Wisconsin. August 1988-May 1990.

Academic Activities and Affiliations:

Research

Professional Development Leave – McGill University, Montreal, QC, Canada, 2014
Review Panel Chair, Water Treatment and Control Technologies, External proposal review for U.S.D.A. Agricultural Research Service National Program NP 211, 2011.
Associate Editor, *Transactions of the ASAE*, 2005 to 2007.
Associate Editor, *Applied Engineering in Agriculture*, 2002 to 2007.
Professional Development Leave - Helsinki University of Technology, Espoo, Finland, 2002
Advisor/Co-advisor for eleven M.S. and one Ph.D.; Committee member for five M.S. and four Ph.D.
Courtesy Faculty, University of Nebraska-Lincoln School of Natural Resources
Graduate Faculty, University of Nebraska-Lincoln.

Extension

Co-Program Leader UNL Extension Issue Team: Protect Water Quality and Soil Resources; 2016.

Team Leader for two regional projects related to bioenergy and water issues education, each funded through grants from U.S.D.A. National Institute of Food and Agriculture:

1. Leader, Heartland Water Coordination Initiative: Bioenergy and Water Team, 2008-2013. (Based in Iowa, Nebraska, Kansas and Missouri).
2. Curriculum Development Team leader for regional on-line curriculum in *Bioenergy and Water Issues*, targeted to Extension Educator professional development, 2009-2012. (Based in North Central Region).

Co-Leader of UNL Extension Food Production and Natural Resources Action Team (Natural Resources sub-team), 2005-06; Co-Leader of Natural Resources Sub-Team, 2004-06.

Completed *Coaching Skills for Leaders* workshop training, Winter 2004.

Co-Leader of the Cooperative Extension Natural Resources and Environmental Management (NREM) Action Team, 1995 to 2000.

Co-Leader, Interdisciplinary research and extension team, *Enhancing Surface Water Quality in the Big and Little Blue River Basins*. 1996 to 2001.

Project Manager, *University of Nebraska Platte Watershed Program*. 1994 to 2001.

Teaching

Instructor, undergraduate course Introduction to Ecological Engineering (BSEN 355)

Instructor, undergrad/graduate course Nonpoint Source Pollution Control Engineering (BSEN 455/855)

Instructor, graduate course Ecological Systems Engineering (BSEN 998), Fall 2003.

Service

Mayor's Clean Water Program Task Force, City of Lincoln, invited member, 2012-13

Senator, UNL Faculty Senate 2006-11; Member Faculty Senate Executive Committee, 2008-11

Advisor, UNL Soil & Water Resources Club, 2003-2006; 2014 to present

Fellow, Center for Great Plains Studies, 2001 to present;

Great Plains Art Museum Board of Trustees, Board President, 2010-2012

Museum Curator search committee, 2007

Judge for the inaugural Great Plains Book Prize competition, 2006

Curriculum Committee, 2005 to 2012

Program and Planning Committee, 2004-2005

Board of Governors, 2003-2006

Nominations Committee, 2002-2004

Other

USDA National Needs Fellowship, Purdue University, 1985-1987.

Sigma Xi Scientific Research Society, Purdue University Chapter.

Rev. P.T. Taiganides Award, Outstanding Graduate Student, Department of Agricultural Engineering, Iowa State University, 1985.

Alpha Epsilon-Honor Society of Agricultural Engineering, Pi Chapter, Iowa State University.

Peter Young Scholarship-Agriculture and Life Science Scholarship, University of Wisconsin-Madison, 1982-1983.

Phi Kappa Phi National Honor Society, U.W.-Madison Chapter.

Gamma Sigma Delta-Honor Society of Agriculture, U.W.-Madison Chapter.

Epsilon Sigma Phi, National Honorary Extension Fraternity, Alpha Epsilon Chapter

Professional Activities and Affiliations:

Member, ASABE, American Society of Agricultural and Biological Engineers; Committee Member: Pollution by Sediment Technical Committee, 1993-1996; Extension Committee, 1997-present

(Chair 2002, 2010); Conservation Systems Committee, 2006-present.
Member, AEES, American Ecological Engineering Society; Secretary, 2013-2015
Associate Member, ASCE, American Society of Civil Engineers; Nebraska Section, 1995-2016; NE Water
Resources Technical Chair (1997)
Member, SWCS, Soil and Water Conservation Society
Member, NCEA, Nebraska Cooperative Extension Association
Registered Professional Engineer-Wisconsin (No. 26869)

Awards:

Research

2001

Selected by *Transactions of the ASAE* for special recognition for contributions as a technical reviewer for the Soil and Water Division.

1998

Recipient of 1998 *Recognition of Junior Faculty for Excellence in Research* Award, presented by the Institute of Agriculture and Natural Resources Agricultural Research Division

1997

Recipient of two national ASAE Superior Paper Awards:

1. Franti T.G., G.R. Foster, and E.J. Monke. 1996. Modeling the effects of incorporated residue on rill erosion part I: Model development and sensitivity. *Trans of the ASAE*, Vol. 39(2):535-542.
2. Franti T.G., G.R. Foster, and E.J. Monke. 1996. Modeling the effects of incorporated residue on rill erosion part II: Experimental results and model validation. *Trans of the ASAE*, Vol. 39(2):543-550.

Extension

2015

Co-Recipient of the Community Landscape Award, awarded by the Nebraska State Arboretum, for state-wide, team programming in stormwater management and promotion of green infrastructure.

2013

Recipient of team award: ANREP Outstanding Team 2013: Gold Award, awarded by the Association of Natural Resource Extension Professionals (ANREP), June 2013, for UNL Stormwater Management Team.

Recipient of team award: Award of Excellence: Creative Programming by a Team, awarded by the Nebraska Cooperative Extension Association (NCEA), November 2013, for UNL Stormwater Management Team.

2008

Recipient of 2008 ASAE Educational Aids Blue Ribbon Award – Innovative Extension Methods or Impact Assessment Category – Report on *Impact Assessment of the Extension Program “Promoting Conservation Buffers in the Blue River Basin, 1996-2006.*

2005

Recipient of two ASAE Educational Aids Blue Ribbon Award – Fact Sheet Category - *Planning Your Riparian Buffer: Design and Plant Selection* NebGuide G05-1557 and *Installing Your Riparian Buffer: Planting Trees and Grass, Post-Planting Care and Maintenance.* NebGuide G05-1558.

2003

Recipient of an ASAE Educational Aids Blue Ribbon Award - Circulars Category - *Guide to Buffers in the Blue River Basin*. Extension Circular, EC-02-725, Nebraska Cooperative Extension.

Recipient of a Silver Award (Long Publication Category) from Association of Natural Resource Extension Professionals (ANREP) for: *Guide to Buffers in the Blue River Basin*. EC-02-725.

1999

Recipient of national 1999 ASAE Nolan Mitchell Young Extension Worker Award

Recipient of two national 1998 ASAE Educational Aids Blue Ribbon Awards:

- Factsheet: Franti, Roeth and Zoubek. 1997. BMPs to Reduce Atrazine Runoff from Irrigated Corn in South Central Nebraska. NebFact No. NF97-323
- Newsletter: Herpel and Franti. 1997. *Platte Watershed Update*. University of Nebraska Cooperative Extension Platte Watershed Program, Summer 1997

1997

Co-recipient of 1997 Institute of Agriculture and Natural Resources Initiative Team Award for team project entitled: *Enhancing Surface Water Quality in the Big and Little Blue River Basins*.

Recipient of three national 1997 ASAE Educational Aids Blue Ribbon Awards:

- Factsheet: Franti. *Bioengineering for Hillslope, Streambank, and Lakeshore Erosion Control*. NebGuide No. G96-1307-A
- Web Page: Franti, Jack, & Herpel. *Platte Watershed Program World Wide Web Site*.
- Bulletin: Comfort, Franti & Smith. *Pesticide Runoff and Water Quality in Nebraska*. Extension Circular No. EC96-143

Publication List:

Referred Publications

Anderson, A.R., T.G. Franti, and D.P. Shelton. 2018. Hydrologic Evaluation of Residential Rain Gardens Using a Stormwater Runoff Simulator. *Applied Eng. in Agri., Trans. of the ASABE*. 61(2): 495-508.

Al-wadaey, A., C.S. Wortmann, T.G. Franti, C.A. Shapiro and D.E. Eisenhauer. 2012. Effectiveness of grass filters in reducing phosphorus and sediment runoff. *Water, Air, & Soil Pollution Vol.* 223(9):5865-5875.

Alms, W.C., T.G. Franti, and D.P. Shelton. 2011. Improved Soil Mixing and Delivery System for a Storm Runoff Simulator. *Applied Eng. in Agri., Vol.* 27(4):579-586.

Wortmann, C.S., R.A. Drijber, and T.G. Franti. 2010. One-time Tillage of No-till Crop Land Five Years Post-Tillage. *Agron. Jour.* 102(4):1302-1307.

Alwadaey, A.M., C.S. Wortmann, T.G. Franti, C.A. Shapiro, and D.E. Eisenhauer. 2010. Manure application setback effect on phosphorous and sediment in runoff. *J. Soil Sci. Environ. Manage.* 1:95-98.

Shelton, D.P., R.A. Wilke, T.G. Franti, and S.J. Josiah. 2009. Farmlink: Promoting Conservation Buffers Farmer-to-Farmer. *Agroforestry Systems* 75(1):83-89.

- Wortmann, C.S., J.A. Quincke, R.A. Drijber, M. Mamo, T. Franti. 2008. Soil microbial change and recovery after one-time tillage of continuous no-till. *Agronomy Jour.* 100(6):1681-1686.
- Mendoza, R.B., T.G. Franti, J.W. Doran, T. Powers and C.W. Zanner. 2008. Tillage Effects on Soil Quality Indicators and Nematode Abundance in Loessial Soil Under Long-term No-till Production. *Communication in Soil Science and Plant Analysis*, 39:2169-2190.
- Sutko, N.J., T.G. Franti, and D.P. Shelton. 2008. Development of a Storm Runoff Simulator: Part 3 – Sediment Mixing Device. *Applied Engineering in Agriculture*, 24(6): 753-761.
- Hay, C.H., T.G. Franti, D.B. Marx, E.J. Peters and L.W. Hesse. 2008. Macroinvertebrate Drift Density in Relation to Abiotic Factors in the Missouri River. *Hydrobiologia*, 598:175-189.
- Hay, C.H., T.G. Franti, D.B. Marx, E.J. Peters, and L.W. Hesse. 2008. Relationships between larval fish drift and abiotic factors in the Missouri River. *Journal of Freshwater Ecology*, 23(4):589-597.
- Quincke, J.A., C.S. Wortmann, M. Mamo, T. Franti, and D. A Drijber. 2007. Occasional Tillage of No-Till Systems: Carbon Dioxide Flux and Changes in Total and Labile Soil Organic Carbon. *Agron. J.* 99:1158-1168.
- Quincke, J.A., C.S. Wortmann, M. Mamo, T. Franti, R.A. Drijber, and J.P. Garcia. 2007. One-Time Tillage of No-Till Systems: Soil Physical Properties, Phosphorous Runoff, and Crop Yield. *Agron. J.* 99:1104-1110.
- Reinsch, C.T., Admiraal, D.M., Dvorak, B.I., Cecrle, C.A., Franti, T.G., and Stansbury, J.S. 2007. Yard Waste Compost as a Storm Water Protection Treatment for Construction Sites. *Water Environment Research*, 79(8): 868-876.
- Franti, T.G., D.P. Shelton and J.D. Cermak. 2007. Development of a Storm Runoff Simulator: Part 1 – Design Considerations. *Applied Engineering in Agriculture*, 23(5):603-611.
- Franti, T.G., D.P. Shelton and J.D. Cermak. 2007. Development of a Storm Runoff Simulator: Part 2 – Water Output Control Device. *Applied Engineering in Agriculture*, 23(5):613-620.
- Flanagan, D.C., J.E. Gilley, and T.G. Franti. 2007. Water Erosion Prediction Project (WEPP) – Development History, Model Capabilities and Future Enhancements. *Transactions of the ASAE*, 50(5):1603-1612.
- Helmets, M. J., D. E. Eisenhauer, M.G. Dosskey, T. G. Franti, J. Brothers, and M. C. McCullough. 2005. Flow pathways and sediment trapping in a field-scale vegetative filter. *Transactions of ASAE* 48(3):955-968
- Helmets, M. J., D. E. Eisenhauer, T. G. Franti, and M.G. Dosskey. 2005. Modeling sediment trapping in a vegetative filter accounting for converging overland flow. *Transactions of ASAE* 48(2):541-555.
- Dosskey, M.G., M.J. Helms, D.E. Eisenhauer, T.G. Franti and K.D. Hoagland. 2002. Assessment of Concentrated Flow Through Riparian Buffers. *Jour. of Soil and Water Conserv.* 57(6):336-343.
- Smith, S.J., T.G. Franti and S.D. Comfort. 2002. Impact of Initial Soil Water Content, Crop Residue Cover and Post-Herbicide Irrigation on Herbicide Runoff. *Trans of the ASAE* 45(6):1817-1824.

Gorneau, W.S., T.G. Franti, B.L. Benham and S.D. Comfort. 2001. Reducing Long-Term Atrazine Runoff from South Central Nebraska. Transactions of the ASAE, 44(1)45-52.

Franti, T.G., J.M. Laflen and D.A. Watson. 1999. Predicting Soil Detachment From High-Discharge Concentrated Flow. Trans. of ASAE, 42(2):329-335.

Franti, T.G., C.J. Peter, D.P. Tierney, R.S. Fawcett, and S.A. Myers. 1998. Reducing Herbicide Losses From Tile Outlet Terraces. Jour. of Soil and Water Conserv. 53(1):25-31.

Franti, T.G., G.R. Foster, and E.J. Monke. 1996. Modeling the Effects of Incorporated Residue on Rill Erosion Part I: Model Development and Sensitivity Analysis. Transactions of the ASAE, Vol. 39(2):535-542.

Franti, T.G., G.R. Foster, and E.J. Monke. 1996. Modeling the Effects of Incorporated Residue on Rill Erosion Part II: Experimental Results and Model Validation. Transactions of the ASAE, Vol. 39(2):543-550.

Extension Publications

Shelton, D.P., S.N. Rodie, K.A. Feehan, T.G. Franti, K.A. Pekarek, and B.A. Holm. 2015. Integrating Extension, Teaching, and Research for Stormwater Management Education. Jour. of Contemporary Water Research & Education, No. 156, Pages 68-77.

Holm, B.A., K.A. Feehan, D.P. Shelton, S.N. Rodie, T.G. Franti. 2014. Stormwater Management: How to Make a Rain Barrel. University of Nebraska Extension Circular EC2001. 8 p.

Holm, B.A., K.E. Holm, D.P. Shelton, S.N. Rodie, K.A. Feehan, T.G. Franti. 2014. Stormwater Management: What Stormwater Is and Why It Is Important. University of Nebraska Extension NebGuide G2238. 4 p.

Feehan, K.A., K.A. Pekarek, D.P. Shelton, S.N. Rodie, T.G. Franti. 2014. Stormwater Management: Rainwater Harvesting with Rain Barrels. University of Nebraska Extension NebGuide G2220. 4 p.

Franti, T., Rodie, S. 2013. Rain Garden Design: Site Selectin and Sizing Guide. Rain Garden Design: Site Selection and Sizing Guide. EC 1262. University of Nebraska-Lincoln Extension.

Feehan, K., Pekarek, K., Shelton, D., Rodie, S., Franti, T. 2013. Stormwater Management: Rainwater Harvesting with Rain Barrels. G2220. University of Nebraska-Lincoln Extension.

Shelton, D., Rodie, S., Feehan, K., Franti, T., Pekarek, K. 2013. Stormwater Management: Disconnecting Downspouts and Impervious Surfaces. G2186. University of Nebraska-Lincoln Extension.

Feehan, K., Pekarek, K., Holm, B., Shelton, D., Rodie, S., Franti, T. 2012. Stormwater Management: Rainwater Harvesting in Residential Scale Landscapes. G2148. University of Nebraska-Lincoln Extension.

Franti, T., R. Broz, E. Burkett, R. Dow, E. Jobman, and C. Norrie. 2011. Water Resources: Issues and Opportunities in Bioenergy Generation. Module 3 in S. Lezberg and J. Mullins, (ed.) Bioenergy and Sustainability Course. On-line Curriculum. Bioenergy Training Center. December. <http://fyi.uwex.edu/biotrainingcenter/>.

Franti, T.G., M.L. Bernards, P.C. Hay, and R.W. Pryor. 2010. Protecting Surface Water Quality:

Adoption of Agricultural Best Management Practices in the Lower Big Blue River Basin. University of Nebraska-Lincoln Cooperative Extension, EC730. 14 pp.

Wortmann, C.S., M. Helmers, B. Gelder, L. Wright Morton, D. Devlin, C. Barden, S. Anderson, R. Broz, T. Franti, T. Regassa, P. Shea, M. Tomer, L. Frees and D. Griffith. 2008. Targeting Of Watershed Management Practices For Water Quality Protection. University of Nebraska RP195.

Devlin, D., C. Barden, P. Barnes, R. Smeda, R. Lerch, M. Bernards, T. Franti, M. Milner, T. Regassa, P. Shea, C. Wortmann, H. Duncan, and T. Phillips. 2008. Pesticide management for water quality protection in the Midwest. Publication of the Heartland Regional Water Coordination Initiative and the Kansas State University Agricultural Experiment Station and Cooperative Extension Service. pp 20.

T. Franti, and S. Rodie. 2007. Stormwater Management: Rain Garden Design for Homeowners. G1758. Nebraska Cooperative Extension.

T. Franti and S. Rodie. 2007. Stormwater Management: Installing Rain Gardens in Your Yard.. G1760. Nebraska Cooperative Extension.

S. Rodie, T. Franti and R. Sutton. 2007. Stormwater Management: Plant Selection for Rain Gardens in Nebraska. G1759. Nebraska Cooperative Extension.

Franti, T.G. 2006. Bioengineering for Hillslope, Streambank and Lakeshore Erosion Control. G1307 (Revised). University of Nebraska-Lincoln Extension.

T. Franti and B. Dvorak. 2006. Demonstration of Yard Waste Compost to Control Soil Erosion from Steep Slopes on Construction Sites. G1625. University of Nebraska-Lincoln Extension.

T. Franti and B. Dvorak. 2006. Using Yard Waste Compost to Control Soil Erosion from Steep Slopes on Construction Sites. G1624. University of Nebraska-Lincoln Extension.

Franti, T.G. and S.R. Tonn. 2005. Understanding Watersheds. NF05-631. Nebraska Cooperative Extension.

Franti, T.G. and S.R. Tonn. 2005. Protecting Your Watershed. NF05-632. Nebraska Cooperative Extension.

Fox, A., T. Franti, S. Josiah and M. Kucera. 2005. Planning Your Riparian Buffer: Design and Plant Selection. G05-1557. Nebraska Cooperative Extension.

Fox, A., T. Franti, S. Josiah and M. Kucera. 2005. Installing Your Riparian Buffer: Planting Trees and Grass, Post-Planting Care and Maintenance. G05-1558. Nebraska Cooperative Extension.

Franti, T.G. and S. Josiah. 2004. Streamside Conservation: Installing and Maintaining Your Riparian Buffer. (Video tape/DVD) UNL Cooperative Extension. 45 minutes.

McCullough, M., S. Josiah and T. Franti 2002. Guide to Buffers in the Blue River Basin. EC-02-725, Nebraska Cooperative Extension

Henry, C. and T.G. Franti. 2001. Total Maximum Daily Loads, TMDLs, What They Mean to Nebraska Agriculture. NF01-460. Nebraska Cooperative Extension.

Lingle, G.R. and T.G. Franti. 1998. What is the ACooperative Agreement@ for Endangered Species Habitat Along the Central Platte River? NF98-375. Nebraska Cooperative Extension.

Franti, T.G. and B.J. Dorn. 1998. Blue River Basins Agricultural Survey Herbicide and Insecticide Use. NF98-368. Nebraska Cooperative Extension.

Franti, T.G. and B.J. Dorn. 1998. Blue River Basins Agricultural Survey Weed and Insect Management. NF98-369. Nebraska Cooperative Extension.

Franti, T.G. and B.J. Dorn. 1998. Blue River Basins Agricultural Survey Tillage, Conservation and Cropping Practices. NF98-370. Nebraska Cooperative Extension.

Franti, T.G. and B.J. Dorn. 1998. Blue River Basins Agricultural Survey Fertilizer Use and Irrigation Management. NF98-371. Nebraska Cooperative Extension.

Franti, T.G., R. Herpel, and G. Lingle. 1998. Glossary of Ecosystem Terms. EC98-787. Nebraska Cooperative Extension.

Meyer, G.E., T.G. Franti, and D.A. Mortensen. 1997. Seek and destroy: Machine vision identifies weeds for spot spraying. Resource, December 1997, pp. 13-14.

Franti, T.G., F.W. Roeth, and G.L. Zoubek. 1997. Best Management Practices to Reduce Atrazine Runoff from Corn Fields in Nebraska. G97-1323-A. Nebraska Cooperative Extension.

Franti, T.G., F.W. Roeth, P.C. Hay, and R.W. Pryor. 1997. BMPs to Reduce Atrazine Runoff from Dryland Corn and Sorghum in South Central and Southeast Nebraska. NF97-322. Nebraska Cooperative Extension.

Franti, T.G., F.W. Roeth, and G.L. Zoubek. 1997. BMPs to Reduce Atrazine Runoff from Irrigated Corn in South Central Nebraska. NF97-323. Nebraska Cooperative Extension.

Franti, T.G. 1997. Vegetative Filter Strips for Agriculture NF97-352. Nebraska Cooperative Extension.

Eckert, M.T., A.E. Arnold, and T.G. Franti. 1996. Platte Search-Bibliographic Database (software). CP16, Nebraska Cooperative Extension.

Comfort, S.D. T.G. Franti, and S.K. Smith. 1996. Pesticide Runoff and Water Quality in Nebraska. EC96-143. Nebraska Cooperative Extension.

Franti, T.G., F.W. Roeth, A.P. Christiansen, R.N. Klein, D.L. Holshouser, J. Schild, and G.L. Zoubek. 1996. Agricultural Management Practices to Reduce Atrazine in Surface Water. G96-1299. Nebraska Cooperative Extension.

Franti, T.G. 1996. Bioengineering for Hillslope, Streambank and Lakeshore Erosion Control. G96-1307-A. Nebraska Cooperative Extension.

National and International Proceedings

Anderson, A.R., T.G. Franti and D.P. Shelton. 2012. Hydrologic Evaluation of Established Rain Gardens Using a Storm Runoff Simulator. In Proc. StormCon 2012. Conference Papers: http://www.forester.net/stormcon-papers/sc12-papers/advanced-research/Franti_R21.pdf.

Franti, T.G. and D.P. Shelton. 2006. A Storm Runoff Simulator to Evaluate Grass Filter Strips and Other Storm Water Management Systems. In: Graham, R. (ed.). Examining the Confluence of Environmental and Water Concerns, Proceedings of the World Environmental and Water Resources Congress 2006; Sponsored by the Envir. & Water Res. Inst., ASCE, May 21-25, 2006, Omaha, NE. CD-ROM Paper No. 14277.

Hay, C.H., T.G. Franti, D.B. Marx and L.W. Hesse. 2006. Drift of fish Larvae in relation to abiotic factors in the Missouri River. Presented at the 8th Biennial River Management Society Symposium/10th Annual Missouri River Natural Resources Conference, The Marina Inn, South Sioux City, NE. May 9-12, 2006.

Franti, T.G., D.E. Eisenhaur, M.C. McCullough, L.M. Stahr, M.G. Dosskey, D.D. Snow, R.F. Spalding and A.L. Boldt. 2004. Watershed Scale Impacts of Buffers and Upland Conservation Practices on Agrochemical Delivery to Streams. In: Proceedings of the Self-Sustaining Solutions for Streams, Wetlands, and Watersheds Conference, St. Paul, MN. Sept. 12-15. pp. 323-332.

Franti, T.G. 2004. Control of Agricultural Loading Using Conservation Buffers. Abstract in: Proceedings of the 2004 USDA-CSREES National Water Quality Conference, Stillwater, Florida, January 11-15, 2004. USDA-CSREES on-line publication.

Dosskey, M.G., M.J. Helmers, D.E. Eisenhauer, T.G. Franti and K.D. Hoagland. 2003. Hydrologic Routing of Farm Runoff and Implications for Riparian Buffers. In: Kolpin, Dana and John D. Williams (Editors). Agricultural Hydrology and Water Quality. AWRA's 2003 Spring Specialty Conference Proceedings, American Water Resources Association, Middleburg, Virginia, TPS-03-1, CD-ROM. Kansas City, MO. May 12-14

Franti, T.G., D.L. Devlin, C.W. Rice and F.W. Roeth. 2000. Improving Water Quality in the Big Blue River Basin, Nebraska and Kansas: An Extension and Research Case Study. Proceedings of the International Symposium on Conservation Tillage, Sinaloa, Mexico. January 24-27.

Franti, T.G., J. Bitner, and A. Sauer. 1997. Transport of Atrazine in Nebraska's Recharge Lake Watershed. Proceedings of the USEPA 5th Annual Nonpoint Source Pollution Management Workshop (abstract); Columbus, MO, February 25-27.

Zellers, J.A., R.H. Hotchkiss, and T.G. Franti. 1996. Stream Instability in Loess Base Channels. Proceedings of the 1996 North American Water and Environment Congress, T96, Anaheim, CA, June 22-28.

Eckert, M.T. and T.G. Franti. 1996. Platte Watershed Program: Promoting Common Goals in a Diverse Watershed. Proceedings of the Watershed '96 Conference, Baltimore, MD, June 8-12.

Franti, T.G. C.J. Peter, D.P. Tierney, R.S. Fawcett, and S.A. Myers. 1995. Best Management Practices to Reduce Herbicide Losses from Tile-outlet Terraces. Presented at the Filter Strip Workshop: An Overview of BMP Research to Reduce Herbicide Movement to Surface Water, Blackland Research Center, Temple, TX. September 13-14, 1995.

Fawcett, R.S., D.P. Tierney, C.J. Peter, J.L. Baker, S.K. Michelson, J.L. Hatfield, D.W. Hoffman, and T.G. Franti. 1995. Protecting Aquatic Ecosystems with Vegetative Filter Strips and Conservation Tillage. Proceedings of the National Agricultural Ecosystem Management Conference. New Orleans, LA, December 13-15, 1995.

Baker, J.L., S.K. Mickelson, J.L. Hatfield, R.S. Fawcett, D.W. Hoffman, T.G. Franti, C.J. Peter, and D.P. Tierney. 1995. Reducing Herbicide Runoff: Role of Best Management Practices. Proceedings Brighton Crop Protection Conference, United Kingdom, pp. 479-487.

National and Regional Papers

Anderson, A.R., Franti, T.G., and D.P. Shelton. 2012. Hydrologic evaluation of established rain gardens in Lincoln, Nebraska. In Proc. 2012 ASABE Annual International Meeting. Electronic submission: <https://elibrary.asabe.org/azdez.asp?JID=5&AID=41699&CID=dal12012&T=2>.

Franti, T.G., D.P. Shelton, and W.C. Alms. 2010. Soil Mixing and Delivery System for a Storm Runoff Simulator. Presented at the 2010 ASABE Annual International Meeting, Pittsburgh, PA, June 20-23, 2010.

Bernards, M.L., P.J. Shea, M. Milner, and T.G. Franti. 2010. Reducing off-site movement of pesticides. *2010 Crop Protection Clinic Proceedings*, University of Nebraska-Lincoln.

Alms, W.C., T.G. Franti and D.P. Shelton. 2009. Native Soil Mixing System for a Runoff Simulator. Presented at the 2009 Mid-Central ASAE Meeting, Ames, IA, April 4-5, 2009.

Sutko, N.J., T.G. Franti and D.P. Shelton. 2006. Creation of Synthetic Sediment Graphs for Storm Runoff Simulation. Presented at the 2006 Mid-Central ASABE Conference, Manhattan, KS, March 31-April 1. ASABE Paper No. MC06-4104.

T.G. Franti, J.D. Cermak and D.P. Shelton. 2005. Development of a Runoff Hydrograph Simulator. Presented at the 2005 ASAE International Meeting, Tampa, Florida, July 17-20, 2005. ASAE Paper No. 052050.

Shelton, D.P., R.A. Wilke, T.G. Franti and S.J. Josiah. 2005. "FarmLink" – Promoting Conservation One-to-One. Presented at the 2005 Mid-Central ASAE Conference, St. Joseph, MO, April 1-2, 2005. ASAE Paper No. MC05-105.

Cermak, J.D., T.G. Franti and D.P. Shelton. 2004. Feasibility of Developing a Runoff Simulator for Conservation Buffer Evaluation. Presented at the 2004 Mid-Central ASAE Conference, St. Joseph, MO, March 25-26, 2004. ASAE Paper No. MC04-303.

Helmets, M.J., D.E. Eisenhauer, T.G. Franti and M.G. Dosskey. 2003. Two-Dimensional Overland Flow and Sediment Trapping in a Vegetative Filter. Presented at the 2003 Mid-Central ASAE Conference, St. Joseph, MO, April 4-5, 2003. ASAE Paper No. MC03-304

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Helmets, M.J., D.E. Eisenhauer, M.G. Dosskey and T.G. Franti. 2002. Modeling Vegetative Filter Performance with VFSSMOD. Presented at the 2002 Mid-Central ASAE Conference, St. Joseph, MO, April 12-13, 2002. ASAE Paper No. MC02-308

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Illinois, July 28-31, 2002. ASAE Paper No. 022165

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Franti, T.G., D.L. Devlin, F.W. Roeth and C.W. Rice. 2000. The Blue River Basin Project: Partnerships in Watershed Extension Programming. Presented at the 2000 ASAE Annual International Meeting, Milwaukee, WI., July 9-12. ASAE Paper No. 00-7019.

Dosskey, M.G., D.E. Eisenhauer, M. Helmers, T.G. Franti, T. Houston and K.D. Hoagland. 2000. Field Assessment of Concentrated Flow Patterns of Surface Runoff Through Riparian Buffers. Abstract and poster presented at the ASA Annual Meeting, Minneapolis, MN, Nov. 5-9.

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Sauer, A.N., T.G. Franti, and J. Bitner. 1997. Three Year Atrazine Runoff Study. Presented at Mid-Central ASAE Meeting, St. Joseph, MO, April 11-12, 1997. Paper No. MC97-107.

Smith, S.K., T.G. Franti, and S.D. Comfort. 1997. Laboratory Simulation of Herbicide Runoff. Presented at Mid-Central ASAE Meeting, St. Joseph, MO, April 11-12, Paper No. MC97-137.

Miller, B.I., L.C. Brown, E.W. Tollner, J.C. Hayes, T.G. Franti and U.S. Tim. 1997. Critical review of data from research on vegetative control systems. Presented at the 1997 ASAE Annual International Meeting. Paper No. 972058. ASAE. 2950 Niles Road, St. Joseph, MI 49085-9659

Eckert, M.T. and T. G. Franti. 1996. A Three State Approach to Resolving a Basin-Wide Dilemma. Presented at the ASAE Summer Meeting. Phoenix, AZ, July 14-18. Paper No. 96-2108.

Eckert, M.T. and T.G. Franti. 1995. 1995 Platte River Basin Ecosystem Symposium Research Needs Forum. Proceedings: 1995 Platte River Basin Ecosystem Symposium, February 28-March 1, pp. 1-10.

Book Chapters

Franti, T. 2009. Erosion and transport of suspended solids, pp. 153-166. In: Soil, Water and Nutrient Management Drainage, Irrigation and the Environment. Ed: M. Paasonen-Kivekas, R. Peltomaa, P.

Vakkilainen, and H. Aijo, Gummerus Kirjapaino Oy, Jyvaskyla 2009, Finland, 2009. ISBN 978-952-5345-22-3, 452 pp.

Franti, T.G. and K.D. Hoagland. 2003. Eutrophication. Encyclopedia of Water Science, Marcel Dekker Inc., New York, New York. pp. 232-234.

Grants:

2017

Cai, X. (Principal Investigator), et al. (Franti, T. – participant) Advancing FEW system resilience in Corn Belt watersheds using integrated technology-environment-economics modeling of nutrient cycling, NSF 17-530 INFEWS, \$2,500,000. October 2017 to September 2021.

2016

Franti, T. (Co-Principal Investigator), Martin, D. L. (Co-Principal Investigator), Contract, "Monitoring a Large Bioretention Cell at Orchard Park with the Neutron Probe Technology: A Pilot Study", City of Omaha, Local & Area, Research, \$5,490.00, Awarded, (start: September 2016, end: December 2016).

2015

Franti, T. (Collaborator), Grant, "Daily Erosion Project and Agricultural Conservation Planning Framework – Extension Tools for Addressing Soil and Water Degradation", North Central Region Water Network, Universities, Public Service, \$29,267.00, Awarded, Yes. (start: October 2015, end: September 2016).

Franti, T. (Co-Principal Investigator), Schmidt, A. (Co-Principal Investigator), Grant, "Professional Development for Extension Professionals and Educators on Land Use and Management Practice to Enhance Water Quality", North Central Region Water Network, Universities, Public Service, \$15,000.00, Awarded, Yes. (expsub: August 2015, sub: September 2015, start: October 2015, end: September 2016).

NRCS Conservation Programs (Including CSP) Cooperative Agreement. \$39,646. USDA-NRCS Nebraska. T.G. Franti. October 2015 to September 2017. Renewed annually since 2012.

Franti, T. (Co-Principal Investigator), Martin, D. L. (Co-Principal Investigator), Contract, "Monitoring a Large Bioretention Cell at Orchard Park with the Neutron Probe Technology: A Pilot Study", City of Omaha, Local & Area, Research, \$4,850.00, Awarded, No. (start: September 2015, end: December 2015).

2012

NRCS Conservation Programs (Including CSP) Cooperative Agreement. \$39,646. USDA-NRCS Nebraska. T.G. Franti. October 2012 to September 2013.

Quantifying Stormwater Runoff Contaminant Mitigation by Bioretention Cells. \$238,886. NE Dept. Envir. Quality. T.G. Franti, D.P. Shelton, and D.D. Snow. March 2012- February 2015

Application of Unmanned Aircraft Systems in Agriculture and Natural Resources: Research and Development, \$26,145.64. Woldt, W. (Principal Investigator), Kocher, M., Meyer, G, Franti, T., Luck, J., Woldstad, J., Billesbach, D., and Ferguson, R., IC-836, Internal Equipment Grant, July 2, 2012..

2010

Development of a Storm Runoff Simulator Phase 3: Chemical Mixing and Chemi-graph Outflow Control. \$59,900. ARD Williams Endowment Fund. T. Franti, D. Shelton, and D. Snow. June, 2010 to May,

2012.

Heartland Regional Water Coordination Initiative. \$298,942. USDA CSREES. Miller et. al, (P.I. T. Franti) October 2010 to September 2012.

2009

Improving and Conserving Water Resources through Stormwater Management Education for Community Decision Makers of Today and Tomorrow. \$544,500. USDA-NIFA, National Integrated Water Quality Program. Shelton et al. (P.I. T. Franti). Sept. 2009 to August 2012.

Heartland Regional Water Coordination Initiative. \$141,006. USDA CSREES. Miller et. al, (P.I. T. Franti) October 2009 to September 2010

2008

Heartland Regional Water Coordination Initiative. \$131,446. USDA CSREES. Miller et. al, (P.I. T. Franti) October 2008 to September 2009

2007

Conservation Security Program Partnership Cooperative Agreement. \$29,472. Nebraska Natural Resources Conservation Service. T. Franti. December 2006 through September 2007.

A Tool to Evaluate Conservation Buffer Performance Toward TMDL Compliance. \$39,880. Alan and Irene Williams Endowment Grant. T. Franti & D. Shelton. 2007-2009

2006

Conservation Security Program Partnership Cooperative Agreement. \$33,649. Nebraska Natural Resources Conservation Service. T. Franti & D. Shelton. December 2005 through September 2006.

2005

Storm Runoff Simulator to Evaluate Conservation Buffers: Part 2 – Sediment Delivery Mechanism. \$24,000. ARD Baker Endowment. T. Franti & D. Shelton. August 2005 to July 2007.

Conservation Security Program Partnership Cooperative Agreement. \$39,930. Nebraska Natural Resources Conservation Service. T. Franti & D. Shelton. January 2005 to December 2005

In Integrated Approach to Reduced Risk of Phosphorous Pollution of Surface Waters in Crop-Livestock Based Managed Ecosystems in the Midwest. \$490,000. USDA NRI. Wortmann, et al. (Franti collaborator). October 2005 to September 2007.

2004

Demonstration Study for Using Compost for Erosion Control, \$44,341. City of Lincoln. P.I. B. Dvorak, J. Stansbury, d. Admiraal, and T. Franti. January, 2004 to June, 2005.

Accelerating Conservation Practice Adoption to Enhance Duck Creek and Lake Wanahoo Water Quality, \$50,000. Lower Platte North NRD. P.I. D. Shelton, T. Franti, S. Josiah. R. Wilke. September, 2004 to September 2006.

Accelerating Conservation Practice Adoption to Enhance Shell Creek Water Quality, \$120,000. Prairieland RC&D.. P.I. D. Shelton, T. Franti, S. Josiah. R. Wilke. September, 2004 to September 2006.

2003

Watershed Assessment in Maple Creek Watershed, \$6,360, Lower Elkhorn NRD. P.I. T. Franti. January, 2003 through June, 2003.

2002

Infiltration in Vegetative Buffer Systems, \$49,974, USFS Agro-Forestry Center. P.I. D. Eisenhauer, T. Franti, and M. Dosskey. August, 2002 through July, 2005.

Video Tape: How to Establish and Maintain Grass Buffers and Riparian Forest Buffers, \$20,000, NRCS-EQIP. P.I. T. Franti, and S. Josiah. January, 2002 through September, 2003.

Middle Missouri River Biomonitoring and Assessment, \$60,000, Rivers Corporation, P.I. D. Marx, D. Eisenhauer and T. Franti. July, 2002 through June, 2005.

2001

Storm Runoff Simulator to Evaluate Conservation Buffers, UNL Foundation - Baker Fund, \$24,000. P.I. T. Franti and D. Shelton, September, 2001 through August, 2003.

Control of Agrichemical Loading to Streams Using Grassed Buffers in Great Plains Watersheds, \$564,954, USDA-CSREES. P.I. R. Spalding, D. Eisenhauer, T. Franti, D. Snow and M. Dosskey. October, 2001 through September, 2004.

Roundup Ready Corn - Its Impact on Ground Water Concentrations of Triazines and Actamides, R. Spalding, D. Snow, M. Exner, T. Franti and A. Martin, \$206,336, Monsanto, October, 2001 through December, 2002.

2000

Accelerating Riparian Buffer Adoption to Enhance Water Quality and Farm Income, USDA-CSREES, \$225,000. P.I. D. Shelton, T. Franti and S. Josiah. October, 2000 through September 2003.

Riparian Buffer Education to Improve Surface Water Quality And Producer Income in the Blue River Basin of Kansas and Nebraska, U.S. EPA Region VII, \$54,648. P.I.: T.G. Franti & S.J. Josiah, October, 2000 through September, 2001.

1999

Community-Based Visioning and Education in the Platte River Watershed Nebraska. US-EPA Challenge Grant, \$ 55,500. P.I. T.G. Franti and G. Lingle. July, 1999 through June, 2002.

Riparian Buffer Education to Improve Surface Water Quality And Producer Income in the Blue River Basin of Kansas and Nebraska, U.S. EPA Region VII, \$47,418. P.I.: T.G. Franti & S.J. Josiah, October, 1999 through September, 2000.

Platte Watershed Program - A Community-Based Watershed Awareness Initiative, USDA-CSREES, \$57,190. P.I.: T.G. Franti. April, 1999 through March, 2000.

Promotion of Filter Strip and Riparian Buffer Strips for Non-Point Source Pesticide Control, Nebraska Department of Agriculture, \$7,000.. P.I. T.G. Franti and S.J. Josiah. June, 1999 through September, 1999.

1998

Development and Testing of Field Techniques for Estimating the Effectiveness of Grass Filter Strips. Nebraska Corn Board, \$72,379. P.I.: D.E. Eisenhauer, T.G. Franti, K.D. Hoagland, and M. Dosskey, July 1998 through June 2001.

University of Nebraska Platte Watershed Program, US EPA Region VII, \$35,000, PI: T.G. Franti. October, 1998 through December, 1999.

1997

University of Nebraska Platte Watershed Program, US EPA Region VII, \$225,000, PI: T.G. Franti, R.G. Volk. October, 1997 through September, 1998.

Pesticide and Water Quality Educational Programming for Extension Educators, Water Center/Cooperative Extension Water Quality Grant, \$ 6,750, P.I.: T.G. Franti, S.D. Comfort and F.W. Roeth. January through September, 1997.

Pesticide and Water Quality in Nebraska: An Educational Video. Water Center/Cooperative Extension Water Quality Grant, \$ 4,250, P.I.: S.D. Comfort, T.G. Franti and F.W. Roeth. January through September, 1997.

Evaluation of Producer Surveys and Development of Education Package, Nebraska Department of Agriculture, Pesticides Program, \$5,850, P.I.: T.G. Franti. July 1 through Sept. 30, 1997.

Water Quality Functions of Vegetative Buffer Systems: Evaluation Procedure and Enhancements. USGS Agro-Forestry Center, \$50,000, P.I.: D.E. Eisenhauer and T.G. Franti. September, 1997 through August, 2000.

1996

Pesticide and Water Quality Educational Programming for Extension Educators, Water Center/Cooperative Extension Water Quality Grant, \$ 6,000, P.I.: T.G. Franti, S.D. Comfort and F.W. Roeth. February, 1996 through September, 1996.

Enhancing Surface Water Quality in the Big and Little Blue River Basins, IANR Funding for Interdisciplinary Action Plan, \$105,000, P.I.: (Co-Leaders) T.G. Franti and K.D. Hoagland. March, 1996, through June, 1999.

Reducing Atrazine Contamination of Interstate Surface Water, from U.S.G.S. 104 Program, \$60,000, P.I.: T.G. Franti and P.K. Barnes (Kansas State University). September, 1996, through December 31, 1998.

Targeting Watersheds in the Blue River Basin to Reduce Atrazine Runoff, Nebraska Department of Environmental Quality, 319 Program, \$114,860, P.I.: T.G. Franti, F.W. Roeth, and W.L. Miller. October, 1997 through December, 1999.

Advanced Assessment for Spot Spraying Plants to Reduce Chemical Input and Improve Water Quality, U.S.G.S. 104 Program, \$64,436, P.I.: G. Meyer, T. Franti and D. Mortensen. September, 1996, through December 31, 1998.

University of Nebraska Platte Watershed Program, US EPA Region VII, \$225,000, PI: T.G. Franti, R.G. Volk. October, 1996 through September, 1997.

1995

University of Nebraska Platte Watershed Program, US EPA Region VII, \$208,000, PI: T.G. Franti, R.G. Volk. October, 1995 through September, 1996.

Demonstration Project Monitoring and Evaluation, Papio-Missouri River Natural Resources District, \$74,000, P.I.: R.R. Hotchkiss and T.G. Franti. February, 1995, through January, 1997.

Involving Local Agricultural Producers in Developing BMPs for NPS Pollution Reduction, Nebraska DEQ, \$ 4,650, P.I.: T.G. Franti and F.W. Roeth. July, 1995 through December, 1996.

1994

Effect of Various BMPs on the Concentration of Cyanazine in Outflow Water from Tile Outlet Terraces and on Outflow Quantities, DuPont Agricultural Products, \$34,140, PI: T.G. Franti. April, 1994, through December, 1995.

Predicting Pesticide Runoff Losses From Four Tillage-Pesticide Management Practices, U.S.G.S. 104 Program, \$30,686, PI: T.G. Franti and S.D. Comfort. February, 1994 through May, 1996.

University of Nebraska Platte Watershed Program, US EPA Region VII, \$70,510, PI: T.G. Franti, R.G. Volk. October, 1994 through September, 1995.

Agricultural Management Practices to Reduce Pesticide Runoff to Surface Water, UNL Research Council Grant-In-Aid, \$2,500, P.I.: T.G. Franti. April, 1994, through March, 1995.

Evaluation of Agricultural Management Practices for Reduction of Atrazine and Other Agrichemicals in Surface Water, UN Foundation, \$40,000, P.I.: T.G. Franti, J. Bitner and R.F. Spalding. June, 1994, through May, 1997.

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