

**Larry Curtis Brown, Professor, Extension Agricultural Engineer (brown.59@osu.edu)**  
Food, Agric., and Biol. Engr., 590 Woody Hayes Drive, Col., OH 432101057; 614.292.3826; 292.9448f

### **Research, Resident Instruction, & Outreach Education Focus**

Design and Management of Integrated Agricultural Water Management Systems & Technologies for Drainage, Irrigation, & Erosion Control Applications to Reduce Impacts on Water Resources, & Balance Environmental & Economic Objectives.

### **International Experience**

Agricultural, Engineering, and Extension Training Projects - Uganda (Makerere University), and South Africa (University of NorthWest), and Project Development with University of Pretoria; Undergraduate and Graduate Academic Curricula Development and Restructuring; Professional Development and Short Term Training Opportunities for University Lecturers; External Examiner and External Advisor on Graduate Theses; Design and Setup Demonstration Projects with University Staff, Government Agencies, Small Communities, Subsistence Farmers; Project Review; Topic areas include: Water resources identification and development; Water harvesting and alternative water supplies; Micro-irrigation of high-value crops; Erosion control; Land use assessment. Collaborative research efforts established in Turkey.

### **Education**

Ph.D. Agricultural Engineering, 1988. Purdue University, West Lafayette, Indiana.  
M.S. Agricultural Engineering, 1984. Mississippi State University, Starkville, Mississippi.  
B.S. Agricultural Engineering, 1983. Mississippi State University, Starkville, Mississippi.  
M.S. Biology, 1979. Middle Tennessee State University, Murfreesboro, Tennessee.  
B.S. Biology, 1972. Middle Tennessee State University, Murfreesboro, Tennessee.

### **Professional Positions**

Professor, July 1, 2001-present. Food, Agricultural, & Biological Engineering, The Ohio State University  
Associate Professor, 1994-present. Food, Agricultural, & Biological Engineering, The Ohio State Univ.  
Executive Director, 1991-present. International Program for Water Management in Agriculture, Overholt Drainage Education & Research Program, Food, Agricultural, & Biological Engineering, The Ohio State University  
Assistant Professor, 1988-1994. Food, Agricultural, & Biological Engineering, The Ohio State University  
Research Hydraulic Engineer, 1988. USDA-ARS National Soil Erosion Research Laboratory, Purdue University, West Lafayette, IN  
Research Associate, 1984-1988. Agricultural Engineering, Purdue University, West Lafayette, IN  
Instructor, Laboratory Instructor, and Research Assistant, 1980-1984. Agricultural Engineering, Mississippi State University, Starkville, MS  
Environmental Survey Consultant, 1979-1980. Murfreesboro, TN  
Environmentalist, RPE, 1976-1980. Tennessee Department Public Health, Murfreesboro, TN

### **Collaborative Research & Extension Projects**

Agricultural Water Management for Ohio (drainage/irrigation/water table management); Ohio Agricultural Water Management Guide Working Group; Overholt Drainage School; Water Quality Project Evaluation; Water Resources Education; Integrating Wetlands in Agricultural Production Systems for Irrigation Water Supply, Water Quality Improvement, Water Recycling & L.C. Brown; The Ohio State University; [brown.59@osu.edu](mailto:brown.59@osu.edu); 02/21/03

Farming Profitability; Hydraulic & Biological Control Water Management Alternatives; Use of Geomorphic Features in Low-Gradient, Lowered, & Artificial Drainage Networks To Enhance Stream Integrity & Drainage; Group Drainage Project Procedures & Assessments; Subsurface Drainage Depth & Spacing Analysis & Modeling; Subsurface Drainage Installation Performance; Agricultural/Urban Stormwater Interface, Treatment & Management; Micro-Irrigation of High Value Crops; Alternative Water Sources, Energy Sources, and Water Harvesting and Recycling for Irrigation Water Supply.

### Relevant Publications

- Allred, B.A., L.C. Brown, N.R. Fausey, R.L. Cooper, W.B. Clevenger, G.L. Prill, G.A. La Barge, C.Thornton, D.T. Riethman, P.W. Chester and B.J. Czartoski. 2003. Water table management to enhance crop yields in a wetland reservoir subirrigation system. *Applied Engineering in Agriculture*.
- Kawongolo, J.B., J.S. Kibalama and L.C. Brown. 2002. Design of a decorticator for small scale sisal processing in Uganda. ASAE Paper No. 021204 Presented at the ASAE International Meeting in Chicago, IL. 16 p. (Uganda).
- Luckeydoo, L.M., N.R. Fausey, L.C. Brown, and C.B. Davis. 2002. Early development of vascular vegetation of constructed wetlands in northwest Ohio receiving agricultural waters. *Agriculture, Ecosystems and Environment* 88(1):89-94.
- Mulamba, P., L.C. Brown, R.W. Ruggles and J.S. Kibalama. 2002. Investigation of the optimum critical point for microirrigation scheduling of cabbages. ASAE Paper No. 021214 Presented at the ASAE International Meeting in Chicago, IL. 16 p. (Uganda).
- Mulamba, P., G. Semu, L.C. Brown and J.S. Kibalama. 2002. Hydraulic properties of bamboo for transmission of water In low volume - low pressure irrigation systems for small scale farmers. ASAE Paper No 022202 Presented at the ASAE International Meeting in Chicago, IL. 10 p. (Uganda).
- Oztekin, T., L.C. Brown and N.R. Fausey. 2002. Hydraulic conductivity evaluation for a drainage simulation model (DRAINMOD). *Turkey Journal of Agriculture and Forestry* 26(2002):37-45.
- Oztekin, T., L.C. Brown and N.R. Fausey. 2002. Simulating water flow to a subsurface drain in a layered soil. *Turkey Journal of Agriculture and Forestry* 26(2002):179-185.
- Sewanyana, C.P., D. Olima, J.S. Kibalama and L.C. Brown. 2002. Design and construction of an improved animal corn harvester. ASAE Paper No. 021205 Presented at the ASAE International Meeting in Chicago, IL. 8 p. (Uganda).
- Oztekin, T., and L.C. Brown. 2001. Modification of the WEPP hillslope model for subsurface drained cropland. Pp. 314-317 In: J.C. Ascough, II and D.C. Flanagan (Eds.). *Proc. of the International Symposium on Soil Erosion Research for the 21<sup>st</sup> Century*. ASAE St. Joseph, MI. 713 p.
- Oztekin, T., L.C. Brown, and N.R. Fausey. 2001. Evaluation of the hydrology components of the WEPP hillslope and WEPP-WTM models for subsurface drained cropland. Pp. 657-660 In: J.C. Ascough, II and D.C. Flanagan (Eds.). *Proc. of the International Symposium on Soil Erosion Research for the 21<sup>st</sup> Century*. ASAE St. Joseph, MI. 713 p.
- Kladivko, E.J., L.C. Brown, and J.L. Baker. 2001. Pesticide transport to subsurface tile drains in humid regions of North America. *Critical Reviews in Env. Science and Tech.* 31(1):1-62 (2001).
- Jacinthe, P.A., Dick, W.A., Brown, L.C. 2000. Bioremediation of nitrate-contaminated shallow soils and waters via water table management techniques: evolution and release of nitrous oxide. *Soil Biology and Biochemistry* 32(2000):371-382.
- Fisher, M., Fausey, N.R., Subler, S.E., Brown, L.C., Bierman, P. 1999. Water table management, nitrogen dynamics, and yield of corn and soybean. *SSSAJ* 63(6):1786-1795.
- Jacinthe, P.A., Dick, W.A., Brown, L.C. 1999. Bioremediation of nitrate-contaminated shallow soils using water table management techniques: nitrate removal efficiency. *Trans. ASAE* 42(5):1251-1259.
- Oztekin, T., Brown, L.C., Holdsworth, P.M., Kurunc, A., Rector, D. 1999. Evaluating drainage design parameters for wastewater irrigation applications to minimize impact on surface waters. *Appl. Engr. in Agric.* 15(5):449-455.
- Richards, S.T., Batte, M.T., Brown, L.C., Czartoski, B.J., Fausey, N.R., Belcher, H.W. 1999. Farm level economic analysis of a wetland-reservoir subirrigation system in Northwestern Ohio. *J. Prod. Agric.* 12(4):588-596.

Kawongolo, J.B., J.S. Kibalama, and L.C. Brown. 1998. Design of a decorticator for small scale sisal processing. MUARIK Bulletin 1:87-92. (Uganda).

Ricker, K.T., L.C. Brown, C.F. Leeds, R.P. Leeds, E.K. Bonar-Bouton, and C.E. Volgstadt. 1998. Water Quality Project Evaluation: A Handbook for Objectives-Based Evaluation of Water Quality Projects. Ohio State University Extension, Bulletin 868. The Ohio State University. 48 pp.

Zucker, L.A., L.C. Brown, C.E. Volgstadt and L.A. Antosch. 1998. Nonpoint Source Assessment: User's Guide to Ohio's Surface Waters. Ohio State University Extension, Bulletin 873. The Ohio State University. 21 pp.

Zucker, L.A. and L.C. Brown. (Eds.). 1998. Agricultural Drainage: Water Quality Impacts and Subsurface Drainage Studies in the Midwest. Ohio State University Extension, Bulletin 871. The Ohio State University. 40 pp.

Brown, L.C. (Ed.). 1998. Drainage in the 21st Century: Food Production and the Environment. Proc. 7th International Drainage Symposium. Vol. 7:02-98 ASAE: St. Joseph, MI.

Atherton, B.C., L.C. Brown, N.R. Fausey, L. Tornes, R.M. Gehring, J.R. Steiger, G.S. Hall, J.M. Patterson, J.J. Prenger, A.M. Brate and T.L. Zimmerman. 1998. Development of a comprehensive agricultural water management guide for Ohio. Pp. 713-723. In: Drainage in the 21st Century: Food Production and the Environment. Proc. 7th International Drainage Symposium. Brown, L.C. (Ed.). Vol. 7:02-98 ASAE: St. Joseph, MI.

Brown, L.C., B.J. Czartoski, N.R. Fausey and H.W. Belcher. 1998. Integrating constructed wetlands, water supply reservoirs, and subirrigation into a high yield potential corn and soybean production system. Pp. 523-529. In: Drainage in the 21st Century: Food Production and the Environment. Proc. 7th International Drainage Symposium. Brown, L.C. (Ed.). Vol. 7:02-98 ASAE: St. Joseph, MI.

Jiang, Z., Q.J. Wu, L.C. Brown and S.R. Workman. 1997. Effects of water table depth and rainfall timing on bromide and nitrate transport. ASCE J. Irrig. and Dra. Engr. 123(4):279-284.

Fausey, N.R., L.C. Brown, H.W. Belcher and R.S. Kanwar. 1995. Drainage and water quality in Great Lakes and CornBelt states. ASCE J. Irr. and Dra. Engr. 121(4):283-288.

Thomas, D.L., L.C. Brown and J.L. Fouss. 1991. Research for new water table management systems. Pp. IR Div/ASCE:138-144 In: Proc. Nat. Conf. Irr. and Drain. Engr. July 22-26, 1991, Honolulu, HA.

Other: 35+ Conf. Proc. Papers/Absts.; 55+ Nat./Int'l Prof. Mtg. Papers; 115+ Extension Pubs; Numerous Project reports.

### **Scientific and Professional Societies**

American Society of Agricultural Engineers; Soil and Water Conservation Society; Water Management Association of Ohio; Ohio Academy of Science Membership; Sigma Xi; Tau Beta Pi

### **Awards**

ASAE Editor's Commendation, 1991 and 1993 Technical Reviewer (Top 10%); ASAE Editor's Commendation, 1996 and 2000 Technical Reviewer (Top 5%); USDA Secretary's Special Recognition Award for Environmental Protection (1997); Department/College Outstanding Student Advising Award (1997); Ohio LICA Affiliate Life Member Award (1997).