



Vincent F. Bralts

Ph.D. Michigan State University - 1983

Professor

Agricultural and Biological Engineering
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Research Areas:

Irrigation hydraulic design, performance, and irrigation scheduling

Classes Taught:

ABE 325 – Soil and Water Resources Engineering
ABE 525 – Advanced Irrigation Design and Management
ABE 591 – Water Technology and Society

Market EXPO, Michigan Greenhouse Growers EXPO,
December 6, 2012.
“Pros and Cons of Irrigation: Investment Cost-Benefit Considerations”,
Indiana Bankers Ag Clinic, Purdue University Stewart Center,
December 5, 2013.

Selected Publications:

Over 80 presentations, 28 journal articles, 4 book chapters and 3 software packages published, topics including: Microirrigation, Computer-Aided Design, Finite Element Analysis, Irrigation Scheduling, Integrated Approaches to International Development, Advanced Irrigation Technology

Liu Y., V.F. Bralts and B. A. Engel. 2015. Evaluating the effectiveness of management practices on hydrology and water quality at watershed scale with a rainfall-runoff model. *Science of the Total Environment*, Volume 511, pp 298-308.

Berdenova A., A. Ainabayev, Z. Insepov, A. Hassanein, V. Bralts, Z. Insepov. 2014. Modeling of Liquid Pumping via microchannels. *Nanotech 2014, Nano Science and Technology Institute*, Volume 2, pp 136-140.

Elwadie, M., L.L. Mao and V.F. Bralts. 2010 .A Simplified Method For Field Evaluation of Solid Set Sprinkler Irrigation Systems. *Applied Engineering in Agriculture* published by the American Society of Agricultural and Biological Engineers, Volume 26, no. 4, pp. 589-597.

Provenzano, G., G. Palau-Salvador, V.F. Bralts. 2007. Discussion of ‘Modified Hazen-Williams And Darcy-Weisbach Equations for Friction and Local Head Losses along Irrigation Laterals’ by John D. Valiantzas. *Journal of Irrigation and Drainage Engineering*, Volume 133, Issue 4, pp. 417-420.

Barragan, J., V.F. Bralts and I-Pai Wu. 2005. Assessment of Emission Uniformity for Micro-irrigation Design. *Biosystems Engineering*, Elsevier Ltd doi:10.1016.

Lei, Ting-Wu; Jiang, Pei-Fu; Bralts, Vincent F; Xiao, Juan Shuili Xuebao. 2005. Principle of negative pressure difference irrigation system and feasibility experimental study. *Journal Hydraulic Engineering*, Vol. 36, no. 3, pp. 298-302.

Gerrish, P.J., V.F. Bralts and W.H. Shayya. 1996. Hydraulic Analysis of Pressure Irrigation Systems Using A Virtual Emitter System. *TRANSACTIONS of the ASAE* 39(4):1403- 1410.

Gerrish, P.J., W.H. Shayya and V.F. Bralts. 1996. An Improved Method for Incorporating Pipe Components in the Analysis of Hydraulic Networks. *TRANSACTIONS of the ASAE* 39(4):1337-1343.

Bralts, V.F., S. Kelly, W.H. Shayya and L.J. Segerlind. 1993. Finite Element Analysis of Microirrigation Hydraulics Using a Virtual Emitter System. *TRANSACTIONS of the ASAE* Vol. 36, no. 3, pp. 717-725.

Selected Presentations:

“A Quick Test for Irrigation Uniformity: Performing the Test and Interpreting the Results”, Great Lakes Fruit, Vegetable & Farm