

BRENDA V. ORTIZ

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EDUCATION

Ph.D. Biological and Agricultural Engineering. **The University of Georgia**. 2008

B.S. Agricultural Engineering. **Universidad Nacional de Colombia and Universidad del Valle, Colombia**. 1997

PROFESSIONAL EXPERIENCE

Auburn University, Auburn, AL, November 2008 – present

Assistant professor – Grain crops & Precision Agriculture Specialist, Agronomy and Soils Department.

The University of Georgia, Athens, GA, August 2004-October 2008

Research Assistant, Department of Biological and Agricultural Engineering.

Colombian Sugar Cane Research Center - Centro de Investigación de la Caña de Azúcar de Colombia, CENICAÑA, August 1997-August 2004

Research Assistant, Geographic Information System area.

SKILLS

Instruction / Teaching

- Taught GIS lectures and several laboratory sessions on Precision Agriculture.
- Taught several lectures of GIS applications for agriculture and agro-ecology to undergraduate students at the Universidad Nacional de Colombia.
- Designed teaching material for several GPS courses.
- Trained engineers and growers in the sugarcane industry on methods for geographic data collection.

Technical

- Expertise in Precision Agriculture
- Expertise in Crop Growth Modeling
- Expertise in GIS and Remote Sensing
- Expertise in Geostatistics and Multivariate Statistics.
- Expertise in the use of GPS for GIS data collection.
- Expertise in Agroecology

Organizational

- Worked with scientists and farmers of different backgrounds.
- Organize and coordinate GIS laboratory work and research.
- Trained scientist, engineers, farmers, and students to perform data collection for GIS research, and in the use of GIS software and GPS units.

Communication

- Performed written and oral presentations, seminar presentations of scientific work.

HONORS AND AWARDS

- Engineering Graduate Student Paper award. Beltwide Cotton Conference. January 2008
- Travel Scholarship, College of Agriculture and Environmental Sciences, UGA. Presented a technical paper at the Sixth European Conference on Precision Agriculture - 6ECPA, Skiathos, Greece. Feb. 2007.
- Travel award from the German Exchange Committee, UGA. Used for a technical visit at the Technical University of Munich (TUM). May. 2006

AFFILIATIONS

American Society of Agricultural and Biological Engineers (ASABE) (2005 to present)
American Society of Agronomy
Crop Science Society of America
Soil Science Society of America

OTHER INFORMATION OF INTEREST

- Fluent in Spanish.

PUBLICATIONS

Referred Journal Articles

- Van Etten ML, L.B. Prevost, A.C. Deen, **B.V. Ortiz**, L.A. Donovan, S-M. Chang. Gender differences in reproductive and physiological traits in a gynodioecious species, *Geranium maculatum* (Geraniaceae). *International Journal of Plant Sciences*. Submitted 4/12/07.

Proceedings / Conference papers

- **Ortiz, B. V.**, C. Perry D. G. Sullivan, B. Kemerait, A. Ziehl, R. F. Davis, G. Vellidis. 2008. Cotton Yield Response to Variable Rate Nematicides According to Risk Zones. In *Proceedings of 2008 ASABE Annual International Meeting*. Rhode Island, Providence 29 June – 3 July. 2008
- **Ortiz, B. V.**, C. Perry D. G. Sullivan, B. Kemerait, A. Ziehl, R. F. Davis, G. Vellidis. 2008. Cotton Yield Response to Variable Rate Nematicides According to Risk Zones. In *Proceedings of Beltwide Cotton Conference*, Nashville, Tennessee, 8-11 Jan., 2008
- **Ortiz, B. V.**, D. G. Sullivan, C. Perry, G. Vellidis. 2007. Integrated effects of root-knot nematode, fertility, and landscape features on cotton yield response. In *Proceedings of World Cotton Research Conference*. Lubbock, Texas. 10-14 Sep. 2007. (peer review paper). [Invited](#).
- **Ortiz, B. V.**, D. G. Sullivan, C. Perry, G. Vellidis. 2007. Spatial Variability of Root Knot Nematodes in Relation to Within Field Variability of Soil Properties. In *Proceedings of 2007 ASABE Annual International Meeting*. Minneapolis, MN. 17-20 Jun. 2007.
- **Ortiz, B. V.**, D. G. Sullivan, C. Perry, G. Vellidis, L. Seymour, and K. Rucker. 2007. Delineation of management zones for site specific management of parasitic nematodes using geostatistical analysis of measured field characteristics. In: Stafford, J., and Werner, A. (Eds.), *Proceedings of the Sixth European Conference on Precision Agriculture (6ECPA)*. Skiathos, Greece. 3-6 Jun. 2007. (peer reviewed paper).
- **Ortiz, B. V.**, D. G. Sullivan, C. Perry, and G. Vellidis. 2007. Geostatistical analysis of the spatial variability of cotton-parasitic nematodes and the factors favoring its occurrence. In *Proceedings of Beltwide Cotton Conference*, New Orleans, Louisiana. National Cotton Council. 9-12 Jan. 2007.
- **Ortiz, B. V.**, D. G. Sullivan, C. Perry, and G. Vellidis. 2006. Geospatial solutions for precision management of cotton root knot nematodes. In *Proceedings of 2006 ASABE Annual International Meeting* Portland, OR. 9-12 Jul. 2006.
- **Ortiz, B. V.** 2003. Geostatistics: a tool for spatial variability of properties of soil analysis. In *Proceedings of VI Colombian Congress of Sugarcane Technicians Association*. Cali, Colombia. 24-26 Sep. 2003. 67-80 p.
- Palma, A., C. A. Luna, J. Carbonell, **B. V. Ortiz**. 1999. Classification of the natural conditions in sugarcane crops for a region in Colombia. In *Proceedings of XXIII International Society of Sugarcane Technologist (ISSCT) Congress*. India.