

# **DR. STEVEN GREEN**

**Associate Professor of Soil and Water Conservation**  
College of Agriculture and Technology, Arkansas State University--Jonesboro  
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## **Professional Preparation**

Purdue University	Soil Management and Land Use	Ph.D., 2002
Purdue University	Agronomy	M.S., 1999
Brigham Young University	Conservation Biology	B.S., 1996

## **Appointments**

Associate Professor of Soil & Water Cons.	Arkansas State University	2009-Present
Assistant Professor of Soil & Water Cons.	Arkansas State University	2006-2009
Postdoctoral Research Soil Scientist	USDA-Agric. Res. Service	2002-2005

## **Courses Taught at Arkansas State University**

Soils (undergraduate)	Soil Quality Assessment (grad/undergrad)
Soil Fertility (graduate/undergraduate)	Environmental Sustainability (graduate)
Soil & Water Conservation (grad/undergrad)	Intro to Alternative Energy (undergrad)

## **Awards**

ASU Environmental Stewardship Award, 2008

## **Synergistic Activities**

Board of Directors-Arkansas Plant Food Association  
Past President-Arkansas Association of Professional Soil Classifiers  
Active Member-American Society of Agronomy and Soil Science Society of America  
Consulting and Advocacy with AR Green Energy Network

## **Research Interests**

Current research focuses on soil sustainability and bioenergy cropping system management. Energy crops under investigation include: sweet and energy sorghums, energy beets, switchgrass, eastern gamagrass, miscanthus giganteus, and camelina. Nutrient use efficiencies as well as soil quality aspects are investigated. Variety trials are conducted to find varieties well adapted to the region. Outreach to regional farmers and industry partners occurs regularly.

## **Recent Publications**

### **Peer Reviewed Journal**

Ge X., **Green V.S.**, Zhang N., Sivakumar G., Xu J. 2012. Eastern gamagrass as an alternative cellulosic feedstock for bioethanol production. *Process Biochemistry* 47:335-339. DOI: 10.1016/j.procbio.2011.11.008.

Angima S.D., Bouldin J.L., **Green V.S.**, Woodruff T. (2011) Effect of soil amendments on soil enzyme activities and active carbon on a managed Douglas-fir forest ecosystem. *Journal of the National Association of County Agricultural Agents* 4:1-12.

Schroeter C., **Green V.S.** 2010. Second time is a charm: The impact of correcting missed exam questions on student learning. *NACTA Journal* 54:21-29.

**Green, V.S.** and K.R. Brye (eds.). 2008. Soil Quality for a Sustainable Environment. [J. Integr. Biosci. 4:1-104.](#)

**Green, V.S.** and K.R. Brye. 2008. Soil quality: An essential component of environmental sustainability. *In* V.S. Green and K.R. Brye (eds.) Soil Quality for a Sustainable Environment. [J. Integr. Biosci. 4:1-2.](#)

Krauth, D.M., J.L. Bouldin, **V.S. Green**, P.S. Wren, and W.H. Baker. 2008. Evaluation of a polyacrylamide soil additive to reduce agricultural-associated contamination. [Bull. of Environ. Contam. Toxicol.](#) 81:116-123. [DOI 10.1007/s00128-008-9448-z](#)

**Green V.S.**, Dao T.H., Stone G.S., Cavigelli M.A., Baumhardt R.L., Devine T.E. (2007) Bioactive phosphorus loss in simulated runoff from a P-enriched soil under two forage management systems. *Soil Science* 172:721-732.

**Green V.S.**, Stott D.E., Curz J.C., Curi N. (2007) Tillage impacts on soil biological activity and aggregation in a Brazillian Cerrado Oxisol. *Soil and Tillage Research* 92:114-121.

**Green V.S.**, Stott D.E., Diack M. (2006) Assay for fluorescein diacetate hydrolytic activity: Optimization for soil samples. *Soil Biology and Biochemistry* 38:693-701.

**Green V.S.**, Cavigelli M.A., Dao T.H., Flanagan D.C. (2005) Soil physical properties and aggregate associated C, N, and P distributions in organic and conventional cropping systems. *Soil Science* 170:822-831.

**Green V.S.**, Stott D.E., Norton L.D., Graveel J.G. (2004) Stability analysis of soil aggregates treated with anionic polyacrylamides of different molecular formulations. *Soil Science* 169:573-581.

**Green V.S.**, Dao T.H., Cavigelli M.A., Flanagan D.C. (2006) Phosphorus fractions and dynamics among soil aggregate size classes of organic and conventional cropping systems. *Soil Science* 171:874-885.

**Green V.S.**, Stott D.E., Norton L.D., Graveel J.G. (2000) Polyacrylamide molecular weight and charge effects on infiltration under simulated rainfall. *Soil Science Society of America Journal* 64:1786-1791.

### **Book Chapter**

**Green V.S.** 2011. Soil Sustainability Issues in Energy Crop Production, in: E. Hood, et al. (Eds.), *Plant Biomass Conversion*, Wiley and Sons, Inc., Ames, Iowa. pp. 143-155.

## **Recent Grants Received**

### **Capacity Building for Bioenergy Research and Outreach in East AR and the delta Region 2012-2015**

Source of Support: USDA-NIFA, NLGCA

Total Award Amount: \$276,877

Role: PI

### **Assessment of Soybean Varieties in Arkansas for Sensitivity to Chloride 2008-2014**

Source of Support: Arkansas Soybean Promotion Board

Total Award Amount: \$210,000 (~\$30,000/year)

Role: PI

### **Mid-south Southeast Bioenergy Consortium (Sustainable Production of Dedicated Bioenergy Crops) 2008-2012**

Source of Support: Department of Energy

Multi-institutional consortium; \$2,050,000 ASU consortium; \$385,000 my portion of the project

Role: Co-PI

### **Water Quality Sampling and Analysis for Nutrients and TSS on the Upper Strawberry River Subwatersheds 2008-2012**

Source of Support: Arkansas Natural Resource Commission

Total Award Amount \$142,008

Role: Co-PI

### **Integrating Soil and Water Conservation and Pest Management strategies for Sustainable Cotton Production 2008-2009**

Source of Support: Cotton Incorporated

Total Award Amount \$40,000

Role: Co-PI

### **MRI: Acquisition of biogeochemical analytical instrumentation for enhanced interdisciplinary research and training at Arkansas State University 2007-2010**

Source of Support: National Science Foundation - MRI

Location of Project: Arkansas State University

Total Award Amount: \$ 190,835

Role: PI

### **Delta Center for Agricultural Water Use 2006-2009**

Source of Support: EPA

Location of Project: Arkansas State University

Total Award Amount: \$ 193,400

Role: Co-PI