

# Crop Production Systems Research Unit

## USDA-ARS, Stoneville, Mississippi, USA

Dr. Krishna N. Reddy, Research Leader  
[Krishna.Reddy@ars.usda.gov](mailto:Krishna.Reddy@ars.usda.gov)

### 2011 Publications

- 1 Bruns, H.A. 2011. Comparisons of single-row and twin-row soybean production in the Mid South. *Agronomy Journal*. 103:702-708. [PDF](#)
- 2 Bruns, H.A. 2011. Planting date, rate and twin-row vs single-row soybean in the mid south. *Agronomy Journal*. 103:1308-1313. [PDF](#)
- 3 Bryson, C.T. and D.A. Skojac. 2011. An annotated checklist of the vascular flora of Washington County Mississippi. *Journal of Botanical Research Institute of Texas*. 5(2):855-866. [PDF](#)
- 4 Boyette, C.D., C.T. Bryson and R.E. Hoagland. 2011. Biological control of *Cucurbita pepo* var. *texana* (Texas Gourd) in cotton (*Gossypium hirsutum*) with the fungus *Fusarium solani* f. sp. *cucurbitae*. *Pest Technology*. 5 (Special Issue 1):97-101. [PDF](#)
- 5 Rothrock, P.E., A.A. Reznicek and C.T. Bryson. 2011. Observations on geographic range and morphological variability of *Carex molestiformis* (Cyperaceae) east of the Mississippi River. *Castanea*. 76(2):178-182. [PDF](#)
- 6 Bellaloui, N., M.W. Ebelhar, A.M. Gillen, D.K. Fisher, H.K. Abbas, A. Mengistu, K.N. Reddy and R.L. Paris. 2011. Soybean seed protein oil and fatty acids are altered by S and S + N fertilizers under irrigated or non-irrigated environments. *Agricultural Sciences*. 2(4):465-476. [PDF](#)
- 7 Hoagland, R.E., C.D. Boyette and K.C. Vaughn. 2011. Interactions of quinclorac with a bioherbicidal strain of *Myrothecium verrucaria*. *Pest Technology*. 5 (Special Issue 1):88-96. [PDF](#)
- 8 Hoagland, R.E., T.S. McCallister, C.D. Boyette, M.A. Weaver and R.V. Beecham. 2011. Effects of *Myrothecium verrucaria* on morning-glory (*Ipomoea*) species. *Allelopathy Journal* 27(2):151-162. [PDF](#)
- 9 Boyette, C.D., D. Gealy, R.E. Hoagland, K.C. Vaughn and A.J. Bowling. 2011. Hemp sesbania (*Sesbania exaltata*) control in rice (*Oryza sativa*) with the bioherbicidal fungus *Colletotrichum gloeosporioides* f. sp. *aeschynomene* formulated in an invert emulsion. *Biocontrol Science and Technology*. 21(2):1399-1407. [PDF](#)
- 10 Huang, Y., G. Fipps, R. Lacey and S.J. Thomson. 2011. Landsat satellite multi-spectral image classification of land cover and land use changes for GIS-based urbanization analysis in irrigation districts of lower Rio Grande Valley of Texas. *Journal of Applied Remote Sensing*. 2(1):27-36. [PDF](#)
- 11 Huang, Y. and S.J. Thomson. 2011. Characterization of in-swath spray deposition for CP-11TT flat-fan nozzles used in low volume aerial application of crop production and protection materials. *Transactions of the American Society of Agricultural and Biological Engineers*. 54(6):1973-1979. [PDF](#)

- 12 Huang, Y. and S.J. Thomson. 2011. Characterization of spray deposition and drift from a low drift nozzle for aerial application at different application altitudes. *International Journal of Agricultural and Biological Engineering*. 4(4):1-6. [PDF](#)
- 13 Deng, W., Y. Huang, C. Zhao, L. Chen and Z. Meng. 2011. Comparison of SVM, RBF-NN, and DT for crop and weed identification based on spectral measurement over corn fields. *International Agricultural Engineering Journal*. 20(1):11-19. [PDF](#)
- 14 Fast, B.J., J.A. Ferrell, G.E. MacDonald, B.A. Sellers, A.W. MacRae, L.J. Krutz and W.N. Kline. 2011. Aminopyralid soil residues affect rotational vegetable crops in Florida. *Pest Management Science*. 67:825-830. [PDF](#)
- 15 Webb, R.M., M.W. Sandstrom, L.J. Krutz and D.L. Shaner. 2011. Simulation of branched serial first-order decay of atrazine and metabolites in adapted and nonadapted soils. *Environmental Toxicology and Chemistry*. 30:1973-1981. [PDF](#)
- 16 Pettigrew, W.T. and M.K. Dowd. 2011. Varying planting dates or irrigation regimes alters cottonseed composition. *Crop Science*. 51:2155-2164. [PDF](#)
- 17 Reddy, K.N., R.M. Zablotowicz, N. Bellaloui and W. Ding. 2011. Glufosinate effects on nitrogen nutrition, growth, yield, and seed composition in glufosinate-resistant and glufosinate-sensitive soybean. *International Journal of Agronomy*. DOI ID 109280; 9 pgs. [PDF](#)
- 18 Bellaloui, N., K.N. Reddy, A.M. Gillen, D.K. Fisher and A. Mengistu. 2011. Influence of planting date on seed protein, oil sugars, minerals, and nitrogen metabolism in soybean under irrigated and non-irrigated environments. *American Journal of Plant Sciences*. 2:702-715. [PDF](#)
- 19 Ding, W., K.N. Reddy, L.J. Krutz, S.J. Thomson, Y. Huang and R.M. Zablotowicz. 2011. Biological response of soybean and cotton to aerial glyphosate drift. *Journal of Crop Improvement*. 25:291-302. [PDF](#)
- 20 Ding, W., K.N. Reddy, R.M. Zablotowicz, N. Bellaloui and H.A. Bruns. 2011. Physiological responses of glyphosate-resistant and glyphosate-sensitive soybean to aminomethylphosphonic acid, a metabolite of glyphosate. *Chemosphere*. 83:593-598. [PDF](#)
- 21 Alarcon, V.J. and G.F. Sassenrath. 2011. Modeling cotton (*Gossypium* spp.) leaves and canopy using computer aided geometric design (CAGD). *Ecological Modelling*. 222:1951-1963. [PDF](#)
- 22 Halloran, J.M., G.F. Sassenrath, D.W. Archer, J.R. Hendrickson, J.D. Hanson and P.A. Vadas. 2011. Application of principles of integrated systems: Results from farmer panels. *Journal of Agricultural Science and Technology*. 1(5):638-644. [PDF](#)
- 23 Sui, R., B.E. Hartley, J.M. Gibson, C. Yang, J.A. Thomasson and S.W. Searcy. 2011. High-biomass sorghum yield estimate with aerial imagery. *Journal of Applied Remote Sensing*. 053523-9 pgs. [PDF](#)
- 24 Ge, Y., J.A. Thomasson, R. Sui and J. Wooten. 2011. Regression-kriging for characterizing soils with remote-sensing data. *Frontiers of Earth Science* 5(3):229-244. [PDF](#)

- 25 Thomson, S.J. and M.E. Lyn. 2011. Environmental and spray mixture effects on droplet size represented by water sensitive paper used in spray studies. *Transactions of the American Society of Agricultural and Biological Engineers*. 54(3):803-807. [PDF](#)
- 26 Ortiz, B.V., S.J. Thomson, Y. Huang, K.N. Reddy and W. Ding. 2011. Determination of differences in crop injury from aerial application of glyphosate using vegetation indices. *Computers and Electronics in Agriculture*. 77:204-213. [PDF](#)
- 27 Vaughn, K.C. and A.J. Bowling. 2011. Biology and physiology of vines. *Horticultural Reviews*. 38:1-21. [PDF](#)
- 28 Vaughn, K.C., A.J. Bowling and K.J. Ruel. 2011. The mechanism for explosive seed dispersal in *Cardamine hirsuta* (Brassicaceae). *American Journal of Botany*. 98(8):1-10. [PDF](#)
- 29 Bowling, A.J. and K.C. Vaughn. 2011. Leaf abscission in *Impatiens* (Balsaminaceae) is due to loss of highly de-esterified homogalacturon in the middle lamellae. *American Journal of Botany*. 98(4):1-12. [PDF](#)
- 30 Bowling, A.J., K.C. Vaughn and R.B. Turley. 2011. Polysaccharide and glycoprotein distribution in the epidermis of cotton ovules during early fiber initiation and growth. *Protoplasma*. 248:579-590. [PDF](#)
- 31 Ligrone, R., K.C. Vaughn and N. Rascio. 2011. A cytochemical and immunocytochemical analysis of the cell wall labyrinth apparatus in leaf transfer cells in *Elodea canadensis*. *Annals of Botany*. 107:717-722. [PDF](#)
- 32 Zablotowicz, R.M., K.N. Reddy, L.J. Krutz, R.E. Gordon, R. Jackson and L.D. Price. 2011. Can leguminous cover crops replace nitrogen fertilization in Mississippi Delta cotton production systems? *International Journal of Agronomy*. DOI 10.1155/2011/135097. [PDF](#)