GRETCHEN FRANCES SASSENRATH

Southeast Research and Extension Center 620-820-6131 Kansas State University gsassenrath@ksu.edu 25092 Ness Rd., Parsons, KS 67357 http://www.k-state.edu/searc/people/gretchen-sassenrath.html **Education** Doctor of Philosophy, Plant Physiology/Biology October 1988 University of Illinois, Urbana, IL Master of Science, Biophysics May 1983 University of Illinois, Urbana, IL **Bachelor of Arts, Biology** May 1979 Oberlin College, Oberlin, OH <u>Professional Experience</u> Associate Professor, Department of Agronomy, Kansas State University 2013-present USDA Agricultural Research Service, Crop Production Systems Research Unit Lead Scientist and Research Plant Physiologist, GS-14 2006 - 2013 Lead Scientist and Research Plant Physiologist, GS-13 1998-2006 Research Agronomist, GS-12 1992-1998 University of California, Davis, Department of Botany Visiting Postdoctoral Scholar 1990-1992 Michigan State University, East Lansing, MI, DOE-Plant Research Laboratory Visiting Research Associate 1988-1990 University of Illinois Department of Biology Graduate Research Assistant 1983-1988 University of Illinois Department of Biophysics and Physiology National Institutes of Health Vision Trainee 1981-1983 University of Illinois Department of Biophysics and Physiology Visiting Specialist in Biological Science 1979-1981 University of Missouri-St. Louis Department of Biology Research Assistant 1974-1975 **Teaching Experience** Coursework: Kansas State University Department of Agronomy 2014 Guest lecturer: Agronomy 655; Site Specific Agriculture Mississippi Delta Community College Precision Agriculture Curriculum 2002 Crop Management Zones; Remote Sensing; GPS/GIS Mississippi University for Women Department of Biology 1993-1994 Guest lecturer: Ecology 310; Introductory Biology Laboratory University of Illinois Department of Biology 1988 Graduate teaching assistant: Introductory Biology Oberlin College Biology Department 1977-1978 Graduate teaching assistant: Introductory Biology

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Teaching Experience (cont'd)

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Graduate Students Trained (major professor):	
Hsiao, Che-Jen, Ph.D. candidate. Soil health. Department of Agronomy, Kansas Sta	ite
University	2015-present
Woods, R., M.S. Determining the economic feasibility of implementing irrigation of	n
small-scale farming systems. Department of Agriculture, Alcorn State University.	2013
Alarcon, Vladimir. Ph.D. A model for photosynthetically active radiation penetration	on in
cotton canopies. Department of Agricultural and Biological Engineering, Mississi	ippi
State University.	2000
Graduate Students Trained (committee member):	
Jayakody, P. Ph.D. Assessment of climatic variability on water quality, quantity and	i
crop productivity in Mississippi watersheds. Agricultural and Biological Engineer	
Department, Mississippi State University.	2013
Rice, B., M.S. MIST: A web-based irrigation scheduling tool for Mississippi crop	
production. Department of Computer Science and Engineering, Mississippi State	
University.	2013
Bi, Xintong. M.S. Back-propagation neural networks for detecting errors in cotton	
grading data. Department of Computer Science, Mississippi State University.	2004
Klimek, Lee. M.S. Using genetic algorithms to discover a near-optimal	2004
parameter set for the USDA Cotton Production Model. Department of	
Computer Science, Mississippi State University.	2000
Lu, Guiyu. M.S. Carbon uptake in cotton leaves with ageing. Department of	2000
Plant and Soil Sciences, Mississippi State University	1004
r land and son sciences, wississippi state oniversity	1994
Research Associates and Visiting Scientists:	
Dr. Vladimir Alarcon, Visiting Scientists, Universidad Diego Portales, Santiago,	
Chile	2015 2016
	2015-2016
Dr. Renata Gaj, Visiting Scientist, Organization for Economic Cooperation	
and Development fellow. Poland.	2010
Dr. Greta Gramig. Post-doctoral Research Associate. USDA/ARS.	2006-2007
Dr. Lee Tarpley. Post-doctoral Research Associate. USDA/ARS.	1997-1998
Dr. M.I. El-Shahawy. Visiting Researcher, Cotton Research Institute, Egypt.	1993
Professional Activities and Committees	
Department of Agronomy, Kansas State University P&T and Annual Evaluations Committee	2016
	2016
East Central Kansas, Agronomy Departmental Facilities and Infrastructure	2013-present
Chuck and Sue Rice International Agronomy Lectureship	2014-present
Search Committee, Post-doctoral scientist	2016
Search Committee, Precision Agriculture Position	2014
Southeast Research and Extension Center	
Environmental Health and Safety Committee	2016-present
Search Committee, Research Technologist	2016
Search Committee, Research Technician, Senior,	2015
Committee member, American Society of Agronomy, Darrel S. Metcalfe Student	
Manuscript Contest	2015-present
Associate Editor, Journal of Soil and Water Conservation	2015-present
Guest Editor, Journal of Soil and Water Conservation Special Issue "Achieving Sustaina	ıbılity
through Conservation in a Changing World"	2015-present
Sigma Xi, Membership Nomination Reviewer	2015-present

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Scientific Committee, international Son Conservation Organization 2015 Comerence,	
El Paso, TX	2015
Co-Editor, "Precision Conservation: Geospatial Techniques for Agricultural and Natural	
Resources Conservation." American Society of Agronomy Special Publication.	2014-present
Judge, graduate student interdisciplinary research session, K-State Research Forum,	
Graduate Student Council Research Forums Committee	March, 2014
Judge, Outstanding Education Publications for the Comprehensive Publications	
category for American Society of Agricultural and Biological Engineers Extension	
Committee	April, 2014
EWRI Task Committee. Next Generation Irrigation Advisory Programs	2010-2013
S1018 Regional Project on Water Management in Humid Areas.	2003-2010
Chair, 2007; Co-Chair, 2006; Secretary, 2005	
Library Committee, Delta Research and Extension Center and USDA-ARS	2006-2010
Stoneville Institutional Biosafety Committee, USDA-ARS	2006-2009
Chair, Integrated Agricultural Systems - Southeast, Auburn, AL	2005
Rapid Response Team, Agronomy Society of America	2003-2006
Technical Editor, Journal of Cotton Science	1998-2002
Beltwide Cotton Production Conferences, Physiology Conference, Chair	1997
Beltwide Cotton Production Conferences, Precision Farming Workshop, "Producing the	,,,
Best"	1997
Sigma Xi Community Affairs Committee, Chair	1994-1998
Ad hoc reviewer for manuscripts submitted to Precision Agriculture, European	JJ1 JJ
Conference on Precision Agriculture, Ecological Modelling, Environmental and	
Experimental Botany, Science of the Total Environment, Water, Plant Physiology,	
Photosynthesis Research, Crop Science, and Agronomy Journal.	1992-present
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Funding and Cooperative Agreements:	
Competitive grant funding:	
Kansas Crop Improvement Association, \$10,000	2016
Kansas Soybean Commission, \$41,081	2015-2016
North Central Soybean Research Program, \$85,120	2016
Academic Excellence, KSU, \$5,000	2016
KSU Small Research Grant, \$5,194	2016
International Incentive Grant, Kansas State University, \$1,543	2014
CONICYT, Chile, 15,255,000 CE pesos (approx. \$25,187)	2014-2016
Kansas Center for Sustainable Ag and Alternative Crops, \$5000	2014 2016
Mississippi Soybean Promotion Board, \$275,297	2010-2013
Mississippi Corn Promotion Board, \$96,484	2011-2013
Remote Sensing Technology Center, Mississippi State University, \$150,000	1999-2001
Cotton Foundation General Research Project, \$76,500	1999-2001
ITD Space Remote Sensing Center, \$100,000	
Cotton Ginners Association grant	
Cotton difficis Association grafit	1997-1998
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USDA-ARS funding: Postdoctoral Research Program, 1997-98. \$50,000; 2006-2007, P	1993 ostdoctoral
USDA-ARS funding: Postdoctoral Research Program, 1997-98. \$50,000; 2006-2007, P Research Program. \$100,000; USDA-ARS Research Apprenticeship Program for M	1993 ostdoctoral
USDA-ARS funding: Postdoctoral Research Program, 1997-98. \$50,000; 2006-2007, P Research Program. \$100,000; USDA-ARS Research Apprenticeship Program for N Students, summers 1994, 1996, 1997, 1999, \$5000 each year.	1993 ostdoctoral
USDA-ARS funding: Postdoctoral Research Program, 1997-98. \$50,000; 2006-2007, P Research Program. \$100,000; USDA-ARS Research Apprenticeship Program for M Students, summers 1994, 1996, 1997, 1999, \$5000 each year. Specific Cooperative Agreements:	1993 ostdoctoral Inority
USDA-ARS funding: Postdoctoral Research Program, 1997-98. \$50,000; 2006-2007, P Research Program. \$100,000; USDA-ARS Research Apprenticeship Program for M Students, summers 1994, 1996, 1997, 1999, \$5000 each year. Specific Cooperative Agreements: John Deere and Company	1993 ostdoctoral Inority 2015-2018
USDA-ARS funding: Postdoctoral Research Program, 1997-98. \$50,000; 2006-2007, P Research Program. \$100,000; USDA-ARS Research Apprenticeship Program for M Students, summers 1994, 1996, 1997, 1999, \$5000 each year. Specific Cooperative Agreements: John Deere and Company Memorandum of Understanding, Universidad Diego Portales, Santiago, Chile	1993 ostdoctoral finority 2015-2018 2015
USDA-ARS funding: Postdoctoral Research Program, 1997-98. \$50,000; 2006-2007, P Research Program. \$100,000; USDA-ARS Research Apprenticeship Program for M Students, summers 1994, 1996, 1997, 1999, \$5000 each year. Specific Cooperative Agreements: John Deere and Company Memorandum of Understanding, Universidad Diego Portales, Santiago, Chile Mississippi State University, Stoneville, MS, \$320,000	1993 ostdoctoral finority 2015-2018 2015 2009-2013
USDA-ARS funding: Postdoctoral Research Program, 1997-98. \$50,000; 2006-2007, P Research Program. \$100,000; USDA-ARS Research Apprenticeship Program for M Students, summers 1994, 1996, 1997, 1999, \$5000 each year. Specific Cooperative Agreements: John Deere and Company Memorandum of Understanding, Universidad Diego Portales, Santiago, Chile	1993 ostdoctoral finority 2015-2018 2015

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Other agreements: Cooperative Research and Development Agreement (CRADA) with Glycozyme, Inc., Irvine, CA. 1 Nov. 1995 – 31 Oct. 1998; Specific Cooperative Agreement with University of Missouri, Portageville, MO. 1999-2000; Standard Memorandum of Understanding with Global Positioning Systems, Inc., Inverness, MS, 1999-2004; Non-funded cooperative agreement with Mississippi State University, 2004-2005; Non-funded cooperative Agreement with Mississippi Agricultural and Forestry Experiment Station, 2004-2006.

Refereed Journal Publications

- Jardine, D.J., Adee, E., Sassenrath, G.F. 2016. Effects of seed protection chemicals on stand and yield of soybeans in Kansas, 2014. Plant Disease Management Reports. 9:ST001.
- Walters, J.P., Archer, D.W., Sassenrath, G.F., Hendrickson, J.R., Hanson, J.D., Halloran, J.M., Vadas, P., Alarcon, V.J. 2016. Exploring agricultural production systems and their fundamental components with system dynamics modeling. Ecological Modelling. 333:51-65.
- Parajuli, P.B., Jayakodya, P., Sassenrath, G.F., Ouyang, Y. 2016. Assessing the impacts of climate change and tillage practices on stream flow, crop and sediment yields from the Mississippi River Basin. Agricultural Water Management. 168:112-124.
- Lukowiak, R., Grzebisz, W., Sassenrath, G.F. 2016. New insights into phosphorus management in agriculture a crop rotation approach. Science of the Total Environment. 542(B):1062-1077.
- Alarcon, V., Sassenrath, G.F. 2015. Optimizing canopy photosynthetic rate through PAR modeling in cotton (Gossypium spp.) crops. Computers and Electronics in Engineering. 119:142-152.
- Zhao, J., Yang, X., Lin, X., Sassenrath, G.F., Dai, S., Lv, S., Chen, X., Chen, F., Mi, G. 2015. Radiation interception and use efficiency contributes to higher yields of newer maize hybrids in northeast China. Agron. J. 107:1-8. doi:10.2134/agronj14.0510
- Mun, S., Sassenrath, G.F., Schmidt, A.M., Lee, N., Wadsworth, M.C., Rice, B., Corbitt, J.Q., Schneider, J.M., Tagert, M.L., Pote, J., Prabhu, R. 2015. Uncertainty analysis of an irrigation scheduling model for water management in crop production. Agricultural Water Management. 155:100-112. doi:10.1016/j.agwat.2015.03.009
- Zhang, T., Lin, X., Sassenrath, G.F. 2015. Current irrigation practices in the central United States reduce drought and extreme heat impacts for maize and soybean, but not for wheat. Science of the Total Environment. 508:331-342.
- Lin, X., Hubbard, K.G., Mahmood, R., Sassenrath, G.F. 2014. Assessing satellite-based start-of-season trends in the U.S. High Plains. Environmental Research Letters. 9:104016. doi:10.1088/1748-9326/9/10/104016.
- Sassenrath, G.F., Schneider, J.M., Schmidt, A.M., Corbitt, J., Halloran, J.M., Prabhu, R. 2013. Testing gridded NWS 1-Day Observed Precipitation Analysis in a daily irrigation scheduler. Agricultural Sciences. 4(12):621-627.
- Sassenrath, G.F., Broome, H., Corbitt, J., Talal Younes, S., Stover, M., Schneider, J.M., Steele, M. 2014. Assessing the energy production potential of Mississippi crops and crop residue using adiabatic bomb calorimetry. Mississippi Academy of Science. 59:396-407.
- Jayakody, P., Parajuli, P., Sassenrath, G.F., Ouyang, Y. 2014. Relationships between water table and model simulated ET. Groundwater. 52(2):303-310. DOI: 10.1111/gwat.12053.
- Woods, R., Sassenrath, G.F., Halloran, J., Whittaker, W. 2013. The economic feasibility of implementing irrigation in small, limited resource farming systems. American Journal of Experimental Agriculture. 3(4):664-684.
- Parajuli, P., Jayakody, P., Sassenrath, G.F., Ouyang, Y., Pote, J.W. 2013. Assessing the impacts of croprotation and tillage on crop yields and sediment yield using a modeling approach. Agricultural Water Management. 119:32-42.
- Sassenrath, G.F., Schneider, J.M., Gaj, R., Grzebisz, W., Halloran, J.M. 2013. Nitrogen balance as an indicator of environmental impact: Towards sustainable agricultural production. Renewable Agriculture and Food Systems. 28(3):276-289. doi:10.1017/S1742170512000166.

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- Grzebisz, W., Gaj, R., Sassenrath, G.F., Halloran, J.M. 2012. Fertilizer use and wheat yield in Central-Eastern European Countries from 1986-2005 and its implications for developing sustainable fertilizer management practices. Communication in Soil Science and Plant Analysis. 43:2358–2375.
- Sassenrath, G.F., Schneider, J.M., Schmidt, A.M., Silva, A.M. 2012. Quality assurance of weather parameters for determining daily evapotranspiration in the humid growing environment of the Mid-South. Mississippi Academy of Science. 57:178-192.
- Halloran, J.M., Sassenrath, G.F., Archer, D.W., Hendrickson, J.R., Hanson, J.D., Vadas, P.A. 2011. Application of principles of integrated systems: Results from farmer panels. J Agricultural Science and Technology. 1(5):638-644.
- Alarcon, V.J., Sassenrath, G.F. 2011. Modeling cotton (Gossypium spp.) leaves and canopy using computer aided geometric design (CAGD). Ecol. Model. 222:1951–1963 doi:10.1016/j.ecolmodel.2011.03.037
- Sassenrath, G.F., Halloran, J.M., Archer, D.W., Raper, R.L., Hendrickson, J.R., Vadas, P., Hanson, J. 2010. Drivers impacting the adoption of sustainable agricultural management practices and production systems of the Northeast and Southeast US. J. Sustainable Agriculture. 34:1–23.
- Sassenrath, G.F., Heilman, P., Luschei, E., Bennett, G., Fitzgerald, G., Klesius, P., Tracy, W., Williford, J.R. 2008. Technology, complexity and change in agricultural production systems. Renewable Agriculture and Food Systems. 23(4):285-295
- Hendrickson, J.R., Sassenrath, G.F., Archer, D., Hanson, J., Halloran, J. 2008. Interactions in Integrated U.S. Agricultural Systems: The past, present and future. Renewable Agriculture and Food Systems. 23(4):314-324.
- Hendrickson, J.R., Liebig, M.A., Sassenrath, G.F. 2008. Environment and Integrated Agricultural Systems. Renewable Agriculture and Food Systems. 23(4):304-313.
- Hendrickson, J.R., Hanson, J.D., Tanaka, D.L., Sassenrath, G.F. 2008. Principles of integrated agricultural systems: Introduction to process and definitions. Renewable Agriculture and Food Systems, 23(4):265-271.
- Tarpley, L. and Sassenrath, G.F. 2006. Carbohydrate profiles during cotton floral bud (square) development. J. Agronomy and Crop Science. 192:363-372.
- Sassenrath, G.F., Adams, E.R., and Williford, J.R. 2005. Rapid sampling system for determination of cotton fiber quality spatial variability. Applied Engineering in Agriculture. 21(1):9-14.
- Thomson, S.J., Hanks, J.E., and Sassenrath-Cole, G.F. 2002. Continuous geo-referencing for video-based remote sensing on agricultural aircraft. Transactions of the ASAE 45(4): 1177-1189.
- Murray, A.K., Nichols, R.L., and Sassenrath-Cole, G.F. 2001. Cell wall biosynthesis: glycan containing oligomers in developing cotton fibers, cotton fabric, wood and paper. Phytochemistry. 57:975-986.
- Tarpley, L., Reddy, K.R., and Sassenrath-Cole, G.F. 2000. Reflectance indices with precision and accuracy in predicting cotton leaf nitrogen concentration. Crop Science. 40:1814-1819.
- Wise, R.R., Sassenrath-Cole, G.F., and Percy, R.G. 2000. A comparison of leaf anatomy in field-grown *Gossypium hirsutum* and *G. barbadense*. Annals of Botany, 86:731-738.
- Bradow, J.M., Wartelle, L.H., Bauer, P.J., and Sassenrath-Cole, G.F. 1997. Small-sample cotton fiber quality quantitation. J. Cotton Science, 1:48-58.
- Bradow, J.M., Bauer, P.J., Hinojosa, O., and Sassenrath-Cole, G.F. 1997. Quantitation of cotton fibre-quality variations arising from boll and plant growth environments. Eur. J. Ag., 6:191-204.
- Sassenrath-Cole, G.F., Lu, G., Hodges, H.F., and McKinion, J.M. 1996. Photon flux density versus leaf senescence in determining photosynthetic efficiency and capacity of Gossypium hirsutum L. leaves. Exp. Env. Botany, 36:439-446.
- Bradow, J.M., Hinojosa, O., Wartelle, L.H., Davidonis, G., Sassenrath-Cole, G.F., and Bauer, P.J. 1996. Applications of AFIS fineness and maturity module and X-ray fluorescence spectroscopy in fiber maturity evaluation. Textile Res. J., 66:545-554.
- Sassenrath-Cole, G.F. Dependence of canopy light distribution on leaf and canopy structure for two

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- cotton (Gossypium) species. 1995. Agric. For. Meteorol., 77:55-72.
- Wartelle, L.H., Bradow, J.M., Hinojosa, O., Pepperman, A.B., Sassenrath-Cole, G.F., and Dastoor, P. 1995. Quantitative cotton fiber maturity measurements by X-ray fluorescence spectroscopy and AFIS. J. Agric. Food Chem., 43:1219-1223.
- Sassenrath-Cole, G.F., Pearcy, R.W., and Steinmaus, S. 1994. The role of enzyme activation state in limiting carbon assimilation under variable light conditions. Photosyn. Res. 41:295-302.
- Sassenrath-Cole, G.F. and Pearcy, R.W. 1994. Regulation of photosynthetic induction state by the magnitude and duration of low light exposure. Plant Physiol. 105:1115-1123.
- Sassenrath, G.F. and Pearcy, R.W. 1992. The role of ribulose-1,5-bisphosphate regeneration in the induction requirement of photosynthetic CO₂ exchange under transient light conditions. Plant Physiol. 99:227-234.
- Sassenrath, G.F., Ort, D.R., and Portis, Jr., A.R. 1990. Impaired reductive activation of stromal bisphosphatases in tomato leaves following low temperature exposure at high light. Arch. Biochem. Biophys. 282:302-308.
- Sassenrath, G.F. and Ort, D.R. 1990. The relationship between inhibition of photosynthesis at low temperature and in inhibition of photosynthesis after rewarming in chill-sensitive tomato. Plant Physiol. Biochem. 28:457-465.
- Ebrey, T., Tsuda, M., Sassenrath, G., West, J.L., and Waddell, W.H. 1980. Light activation of bovine rod phosphodiesterase by nonphysiological visual pigments. FEBS Letters 116:217-219.

Refereed Book Chapters and Proceedings Publications

- Alarcon, V.J., Sassenrath, G.F. 2016. Modeling and simulating nutrient management practices for the Mobile River Watershed. The 16th International Conference on Computational Science and Its Applications (ICCSA 2016). Beijing, China, July 4-7, 2016. pp.33-43. July, 2016. DOI: 10.1007/978-3-319-42111-7_4
- Alarcon, V.J., Sassenrath, G.F. 2015. Sensitivity of nutrient estimations to sediment washoff using a hydrological model of Cherry Creek watershed, Kansas, USA. O. Gervasi et al. (Eds.): ICCSA 2015, Part III, LNCS 9157, pp. 457–467, 2015. DOI: 10.1007/978-3-319-21470-2_33
- Sassenrath, G.F., Mueller, T.G., Schneider, J.M. 2015. Transitioning agronomic systems to sustainability through targeted conservation planning. *In* GIS Applications in Agriculture, Volume 4: Conservation Planning. T.G. Mueller and G.F. Sassenrath, eds. Taylor and Francis Publ. p. 1-9
- Mueller, T.G., Zourarakis, D., Sassenrath, G.F., Mijatovic, B., Dillon, C., Gianello, E., Barbieri, R., Rodrigues, M., Rienzi, E.A., Faleiros, G.D. 2015. Remote sensing, soil surveys, and topographic analysis for conservation planning. *In* GIS Applications in Agriculture, Volume 4: Conservation Planning. T.G. Mueller and G.F. Sassenrath, eds. Taylor and Francis Publ. p. 11-35.
- Sassenrath, G.F., Wiener, J.D., Hendrickson, J., Schneider, J., Archer, D. 2010. Achieving Effective Landscape Conservation: Evolving Demands, Adaptive Metrics. *In* P. Nowak and M. Schnepf, ed. "Managing Agricultural Landscapes for Environmental Quality: Achieving More Effective Conservation." Soil and Water Conservation Society, Ankeny, IA. pp 107-120.
- Heitholt, J.J., and Sassenrath-Cole, G.F. 2010. Inter-plant competition: Growth responses to plant density and row spacing. In J.McD. Stewart, D. Oosterhuis, J.J. Heitholt, and J.R. Mauney, eds., Cotton Physiology. National Cotton Council, Memphis, TN. Springer Press, NY. Pp. 179-186.
- Sassenrath, G.F., Hanson, J.D., Hendrickson, J.R., Archer, D.W., Halloran, J.M., Steiner, J.J. 2009. Principles of Dynamic Integrated Agricultural Systems: Lessons learned from an examination of Southeast Production Systems. *In* P. Bohlen, ed. "Agroecosystem Management for Ecological, Social, and Economic Sustainability." Advances in Agroecology Series, Taylor and Francis/CRC Press. pp 259-269
- Sassenrath, G.F. 2009. Developing accurate spatial maps of cotton fiber quality parameters. Applied Statistics in Agriculture. Kansas State University, Manhattan, KS, CD-ROM. Pp 154 165. Sassenrath, G.F., Boggess, J.E., Bi, X., and Pringle, H.C. 2005. Identification of errors in cotton fiber

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- data sets using Bayesian networks. Applied Statistics in Agriculture. Kansas State University, Manhattan, KS. p. 287-295.
- Boggess, J.E., Bi, X., and Sassenrath, G.F. 2004. Detecting errors in cotton grading data using back-propagation neural networks, pp. 621-626. In: Dagli, C.H., Buxazk, A.L., Enke, D.L., Embrechts, M.J., Ersoy, O., (eds.) Smart Engineering System Design: Neural Networks, Fuzzy Logic, Evolutionary Programming, Complex Systems and Artificial Life. Intelligent Engineering Systems through Artificial Neural Networks, Volume 14. New York, NY: ASME Press.
- Sassenrath, G.F., Alarcon Calderon, V.J., and Pringle, H.C. 2003. Synthetic imagery of cotton crops: scaling from leaf to full canopy. In van Taoi, T. (ed.) Digital Imaging and Spectral Techniques: Applications to Precision Agriculture and Crop Physiology. Agronomy Society of America Special Publication Number 66, Madison, WI. pp. 111-133.
- Tarpley, L. and Sassenrath, G.F. 2003. Environmental and physiological components of the cotton leaf reflectance spectrum. In van Taoi, T. (ed.) Digital Imaging and Spectral Techniques: Applications to Precision Agriculture and Crop Physiology. Agronomy Society of America Special Publication Number 66, Madison, WI. pp.95-109. 253 pp.
- Pearcy, R.W., Krall, J.P., and Sassenrath-Cole, G.F. 1996. Photosynthesis in fluctuating light environments, pp. 321-346. In Baker, N.E. (ed.) Photosynthesis and the environment. Advances in Photosynthesis, Vol. 5, Klewer Academ. Publ.
- Pearcy, R.W., Pons, T.L., and Sassenrath, G.F. 1991. Dynamic limitations to photosynthetic gas exchange in a soybean canopy. In Abrol, Y.P., Wattal, P.N., Gnanam, A., Govindjee, Ort, D.R., and Teramura, A.H. (eds.) Impact of Global Climatic Changes on Photosynthesis and Plant Productivity. Oxford, New Delhi, pp. 525-538.

Books

T. Mueller and G.F. Sassenrath, eds. GIS Applications in Agriculture, Volume 4: Conservation Planning. Taylor and Francis Publ. 304 pp. 2015.

Other Publications

- Sassenrath, G.F., Mueller, T., Shoup, D., Alarcon, V.J., Kulesza, S. 2016. In-field variability of terrain and soils in southeast Kansas: Challenges for effective conservation. 13th International Conference on Precision Agriculture. July 31 Aug 4, 2016. St. Louis, MO.
- Sassenrath, G., Lingenfelser, J., Mengarelli, L., and Lin, X. 2016. 2015 Crop Performance in Southeast Kansas, *Kansas Agricultural Experiment Station Research Reports*: Vol. 2: Iss. 3. http://dx.doi.org/10.4148/2378-5977.1199
- Sassenrath, G., Ciampitti, I. A., Shoup, D. E., and Lin, X. 2016. 2015 Soybean Production in Southeast Kansas, *Kansas Agricultural Experiment Station Research Reports*: Vol. 2: Iss. 3. http://dx.doi.org/10.4148/2378-5977.1200
- Sassenrath, G., Shoup, D. E. Lin, X. Coltrain, J. Geren, J., Helwig, D. 2016. Improving Corn Production in Southeast Kansas, *Kansas Agricultural Experiment Station Research Reports*: Vol. 2: Iss. 3. http://dx.doi.org/10.4148/2378-5977.1201
- Hsiao, C. J., Sassenrath, G., Rice, C., Zeglin, L., Hettiarachchi, G. 2016. Soil Microbial Activity with Depth in Claypan Soils of Southeast Kansas, *Kansas Agricultural Experiment Station Research Reports*: Vol. 2: Iss. 3. http://dx.doi.org/10.4148/2378-5977.1202
- Davis, C., Presley, D., Farney, J. K., Sassenrath, G. 2016. Evaluating Multi-Species Cover Crops for Forage Production, *Kansas Agricultural Experiment Station Research Reports*: Vol. 2: Iss. 3. http://dx.doi.org/10.4148/2378-5977.1204
- Alarcon, V. J., Sassenrath, G. 2016. Hydrologic and Nutrient Modeling within an Agricultural Watershed in Southeast Kansas, *Kansas Agricultural Experiment Station Research Reports*: Vol. 2: Iss. 3.http://dx.doi.org/10.4148/2378-5977.1203
- Sassenrath, G.F., Lingenfelser, J., Mengarelli, L., Kusel, K. 2015. Crop Performance in Southeast Kansas. Kansas Agricultural Experiment Station Research Reports: Vol. 1: Iss. 4. Article 4.

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- Sassenrath, G. F., Lin, X., Shoup, D. E. 2015. Identification of yield-limiting factors in southeast Kansas cropping systems. Kansas Agricultural Experiment Station Research Reports: Vol. 1: Iss. 4. Article 5. http://dx.doi.org/10.4148/2378-5977.1054
- Sassenrath, G. F., Ciampitti, I. A., Shoup, D. E. 2015. Soybean production: Planting date × variety, southeast Kansas. Kansas Agricultural Experiment Station Research Reports: Vol. 1: Iss. 4. Article 6
- Ciampitti, I. A.; Shoup, D. E.; Sassenrath, G.; Kimball, J.; and Adee, E. A. 2015. Soybean Planting Date × Maturity Group: Eastern Kansas Summary. *Kansas Agricultural Experiment Station Research Reports*: Vol. 1: Iss. 2. http://dx.doi.org/10.4148/2378-5977.1047
- Sassenrath, G. F., Farney, J. K., Presley, DeAnn, Davis, C. 2015. Improving yield stability and resiliency of agronomic production systems in southeast Kansas. Kansas Agricultural Experiment Station Research Reports: Vol. 1: Iss. 4. Article 7. http://dx.doi.org/10.4148/2378-5977.1057
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