

CURRICULUM VITAE

Scott E. Sattler

Address

Wheat, Sorghum and Forage Research Unit

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Professional Preparation

<i>Institution</i>	<i>Location</i>	<i>Major</i>	<i>Degree, Year</i>
University of Wisconsin	Madison, WI	Genetics	B.Sc., 1994
University of Minnesota	Twin Cities, MN	Plant Biology	Ph.D., 2001
Michigan State University	East Lansing, MI	Biochemistry	Post-doc, 2001-2007

Professional Appointments

<i>Year(s)</i>	<i>Title</i>
2016 – Present	Lead Scientist and Research Molecular Biologist (Plants) (GS-14), USDA-ARS
2016 – Present	Adjunct Associate Professor, Dept. of Agronomy & Horticulture, University of Nebraska-Lincoln
2012 – 2016	Lead Scientist and Research Molecular Biologist (Plants) (GS-13), USDA-ARS
2010 – 2016	Research Molecular Biologist GS-13; USDA-ARS
2008 – 2016	Adjunct Assistant Professor, Dept. of Agronomy & Horticulture, University of Nebraska-Lincoln
2007 – 2010	Research Molecular Biologist GS-12; USDA-ARS

Professional Activities

1. *Proposal Reviewer:* Ad Hoc: NSF (2011, 2013, 2018). Kansas State University (2003).
2. *Committee member:* Constitution Committee, Michigan State University Post-Doctoral Associate Association. 2005-2006.
3. *Committee member:* Sorghum Genomics Executive Committee, 2007 to 2011.
4. *Reviewing activities:* Reviewed manuscripts for The Plant Cell, Plant Physiology, New Phytologist, PLoS ONE, Theoretical & Applied Genetics, Plant Physiology & Biochemistry, Applied Biochemistry & Biotechnology, Biotechnology & Applied Biochemistry, Plant, Cell & Environment, Journal of African Agriculture, Field Crops Research, BioResources, Journal of Cereal Science, Plant Biology, Acta Physiologiae Plantarum, Biotechnology for Biofuels, Plant Cell Reporter, Biofuels, Plant Molecular Biology Reporter, BMC Plant Biology and Journal of Agronomy & Crop Science.
5. *Editorship:* Serve as an *Associate Editor*, Crop Science 2013-Present
6. *Symposia organized:* Serve as the Biotechnology Discipline Chair for Sorghum Improvement Conference of North America (SICNA) from 2013 to 2017.
7. *Committee member:* The University of Nebraska Corn and Sorghum Variety Release Committee. 2013 to 2016.
8. *Committee member:* The University of Nebraska Faculty Greenhouse Committee 2014 to Present.

9. *Committee member:* The University of Nebraska Biotechnology Quality Management System Faculty Committee that oversees regulated field trials. 2014 to Present

Honors and Awards

1. Dean's List, University of Wisconsin College of Agriculture and Life Sciences, Univ. of Wisconsin-Madison. 1990-1994.
2. Alpha Zeta Agricultural Honor Fraternity, College of Agriculture and Life Sciences, University of Wisconsin-Madison. 1991-1994.
3. Graduation with Distinction, College of Agriculture and Life Sciences, University of Wisconsin-Madison. 1994.
4. USDA National Needs Biotechnology Fellowship, University of Minnesota. 1994-1997.
5. Travel award, Department of Genetics and Cell Biology, University of Minnesota. 1997.
6. NIH Biotechnology Graduate Fellowship, University of Minnesota. 1997-1999.
7. Plant Molecular Genetics Institute Doctoral Dissertation Fellowship, University of Minnesota. 2000.
8. Travel award, American Society of Plant Biology. 2002.
9. Competitive fellowship to attend an OPM leadership course entitled 'Effective Writing in the Federal Government' at the Western Management Development Center, Aurora, CO. 2011.
10. Elected to Nebraska Chapter of Sigma Xi. 2011
11. 'No Revision Award' for 5 Year Project Plan for scoring above 7 during OSQR process. 2013
12. Outstanding Associate Editor award for the journal Crop Science. 2016
13. 'No Revision Letter' for 5 Year Project Plan during OSQR process. 2018
14. USDA-ARS \$25,000 Innovation Fund Award for *waxy* sorghum. 2018

Grant funded Projects

1. *Co-Principal Investigator:* Genetic Dissection of Bioenergy Traits in Sorghum, USDA DOE Biomass Genomics (\$750,000; 10/2007-9/2009)
2. *Principal Investigator:* The Impacts Of Lignin Modification On Fungal Pathogen And Insect Interactions In Sorghum For Cellulosic And Thermal Bioenergy, USDA-AFRI. (\$972,310; 2/2011-1/2017)
3. *Co-Principal Investigator:* Response of Transgenic Wheat Altered in Defense Metabolites to Head Scab, USDA-ARS US Wheat and Barley Scab Initiative. (\$65,900; 6/2016-5/2018)
4. *Co-Principal Investigator:* Resistance to stalk pathogens for bioenergy sorghum, USDA-AFRI. (\$1,000,000; 10/2016-9/2020)
5. *Co-Principal Investigator:* Response of Wheat Constitutively Expressing Lignin Genes to Fusarium Head Blight, USDA-ARS US Wheat and Barley Scab Initiative. (\$70,000; 10/2017-9/2019)

Speaking Invitations

1. Invited to present “Tocopherol synthesis and function in plants and cyanobacteria.” Department of Plant Gene Expression, University of Lausanne, Lausanne, Switzerland. 2003.
2. Invited to present “The roles of tocopherols (Vitamin E) in seedlings.” Department of Pharmaceutical Biology, Julius-von-Sachs-Institute of Biosciences, University of Würzburg, Würzburg, Germany, Germany. 2005
3. Invited to present talk “Non-enzymatic lipid peroxidation alters gene expression and activates defense responses in the tocopherol deficient mutant *vte2*.” 17th International Symposium on Plant Lipids. East Lansing, MI. 2006.
4. Invited to present “The sorghum brown midrib mutants, tools to improve biomass for feed and biofuels” 17th Plant & Animal Genomes Conference, San Diego, CA. 2009
5. Invited to present “The sorghum brown midrib mutants, tools to improve biomass for feed and biofuels” Genetics Institute, University of Florida, Gainesville, FL. 2009.
6. Invited to present “The sorghum brown midrib mutants, tools to improve biomass for biofuels.” Sorghum Improvement Conference of North America. Amarillo, TX. 2009.
7. Invited to present “Molecular characterization of brown midrib mutants to improve sorghum biomass for bioenergy.” Center for Sorghum Improvement, Kansas State University, Manhattan, KS. 2009.
8. Invited to present “Sorghum brown midrib mutants: genes to improve sorghum forage utilization and bioenergy conversion.” SweetFuel Project Annual Meeting, Sete Lagoas, Brazil. 2010.
9. Invited to present “The effects of lignin biosynthetic mutants (*bmr6* and *bmr12*) on plant performance and cell wall chemistry.” Sorghum Improvement Conference of North America. Mead, NE. 2010.
10. Invited to present “Global expression in Sorghum *brown midrib (bmr) 6* and *12* mutants; a tool to improve biomass for biofuels.” ASA, CSSA & SSSA International Annual Meetings, Long Beach, CA. 2010.
11. Invited to present “Modifying Lignin to Improve Sorghum for Cellulosic and Thermal Bioenergy.” Corn, Sorghum, Soybean Seed Research Conference and Seed Expo. Chicago, IL. 2011.
12. Invited to present “Lignin Modification to Improve Sorghum for Cellulosic and Thermal Bioenergy.” Midwest Sectional Meeting of ASPB. Lincoln, NE. 2012.
13. Invited to present “Improving Sorghum for Bioenergy Uses.” U.S.-Korea Conference. East Rutherford, NJ. 2013.
14. Invited to present “Improving Sweet Sorghum for Bioenergy.” Meeting of Cochran Fellows on Sweet Sorghum. Tifton, GA. 2013.
15. Invited to present “Lignin modification to improve sorghum biomass for bioenergy uses.” Sorghum Improvement Conference of North America. Lubbock, TX. 2013.
16. Invited to present “Lignin modification to improve sorghum for bioenergy uses, and impacts of these modifications on plant-biotic interactions” 22nd Plant & Animal Genomes Conference, San Diego, CA. 2014.
17. Invited to present “USDA-ARS, Lincoln NE Sorghum Project: Genetic Improvement of Sorghum for Non-Grain Energy Uses 2013-2018” National Sorghum Producers and United Sorghum Checkoff. Lubbock, TX. 2014.

18. Invited to present “The sorghum *brown midrib (bmr)* mutants: a forward genetics approach to lignin” 24th Plant & Animal Genomes Conference, San Diego, CA. 2016.
19. Invited to present “The sorghum *brown midrib (bmr)* mutants: a forward genetics approach to lignin” Center of Sorghum Improvement, Kansas State University, Manhattan, Kansas. 2016
20. Invited to present “Modifying lignin content and composition to improve sorghum for bioenergy” 7th Congress on Biofuels and Bioenergy, Toronto, Canada. 2017.
21. Invited to present “Tailoring lignin biosynthesis for emerging bioenergy and bioproduct applications” Sorghum in the 21st Century - Food, Feed and Fuel in a Rapidly Changing World, Cape Town, South Africa. 2018.
22. Invited to present “Tailoring lignin biosynthesis for emerging bioenergy and bioproduct applications” Sorghum in the 21st Century - Food, Feed and Fuel in a Rapidly Changing World, Cape Town, South Africa. 2018.
23. Invited to present “Genetic improvement of sorghum for bioenergy, feed, and food uses” Tennessee State University, Nashville, TN. 2019.

Peer-Reviewed Journal Publications

1. Cheng, Z., **S. Sattler**, H. Maeda, Y. Sakuragi, D.A. Bryant and D. DellaPenna. Highly divergent methyltransferases catalyze a conserved reaction in tocopherol and plastoquinone synthesis in cyanobacteria and photosynthetic eukaryotes. *Plant Cell* 15: 2343-2356. 2003.
2. **Sattler, S.E.**, E.B. Cahoon, S.J. Coughlan and D. DellaPenna. Characterization of tocopherol cyclases from higher plants and cyanobacteria. Evolutionary implications for tocopherol synthesis and function. *Plant Physiology* 132: 2184-2195. 2003.
3. **Sattler, S.E.**, Z.G. Cheng and D. DellaPenna. From Arabidopsis to agriculture: engineering improved Vitamin E content in soybean. *Trends in Plant Science* 9: 365-367. 2004.
4. **Sattler, S.E.**, L.U. Gilliland, M. Magallanes-Lundback, M. Pollard and D. DellaPenna. Vitamin E is essential for seed longevity, and for preventing lipid peroxidation during germination. *Plant Cell* 16: 1419-1432. 2004.
5. **Sattler, S.E.**, L. Mene-Saffrane, E.E. Farmer, M. Krischke, M.J. Mueller and D. DellaPenna. Nonenzymatic lipid peroxidation reprograms gene expression and activates defense markers in Arabidopsis tocopherol-deficient mutants. *Plant Cell* 18: 3706-3720. 2006.
6. Palmer, N.A., **S.E. Sattler**, A.J. Saathoff, D. Funnell, J.F. Pedersen and G. Sarath. Genetic background impacts soluble and cell wall-bound aromatics in brown midrib mutants of sorghum. *Planta* 229: 115-127. 2008.

7. Pedersen, J.F., J.J. Toy, D.L. Funnell, **S.E. Sattler**, A.L. Oliver and R.A. Grant. Registration of BN611, AN612, BN612, and RN613 Sorghum Genetic Stocks with Stacked bmr-6 and bmr-12 Genes. *Journal of Plant Registrations* 2: 258-262. 2008.
8. Sarath, G., R.B. Mitchell, **S.E. Sattler**, D. Funnell, J.F. Pedersen, R.A. Graybosch and K.P. Vogel. Opportunities and roadblocks in utilizing forages and small grains for liquid fuels. *Journal of Industrial Microbiology & Biotechnology* 35: 343-354. 2008.
9. Dien, B.S., G. Sarath, J.F. Pedersen, **S.E. Sattler**, H. Chen, D.L. Funnell-Harris, N.N. Nichols and M.A. Cotta. Improved Sugar Conversion and Ethanol Yield for Forage Sorghum (*Sorghum bicolor* L. Moench) Lines with Reduced Lignin Contents. *BioEnergy Research* 2: 153–164. 2009.
10. **Sattler, S.E.**, A.J. Saathoff, E.J. Haas, N.A. Palmer, D.L. Funnell-Harris, G. Sarath and J.F. Pedersen. A Nonsense Mutation in a Cinnamyl Alcohol Dehydrogenase Gene Is Responsible for the Sorghum brown midrib 6 Phenotype. *Plant Physiology* 150: 584-595. 2009.
11. **Sattler, S.E.**, J. Singh, E.J. Haas, L. Guo, G. Sarath and J.F. Pedersen. Two distinct waxy alleles impact the granule-bound starch synthase in sorghum. *Molecular Breeding* 24: 349-359. 2009.
12. **Sattler, S.E.**, D.L. Funnell-Harris, and J.F. Pedersen. Brown Midrib Mutations and their Importance to the Utilization of Grasses. *Plant Science* 178: 229-238. 2010.
13. **Sattler, S.E.**, D.L. Funnell-Harris, and J.F. Pedersen. Efficacy of singular and stacked brown midrib 6 and 12 in modification of lignocellulose and grain chemistry. *Journal of Agricultural and Food Chemistry* 58: 3611–3616. 2010.
14. Funnell-Harris, D.L., J.F. Pedersen and **S.E. Sattler**. Alteration in lignin biosynthesis restricts growth of *Fusarium* spp. in brown midrib sorghum. *Phytopathology* 100: 671-681. 2010.
15. Palmer, N.A., **S.E. Sattler**, A.J. Saathoff and G. Sarath. A continuous, quantitative fluorescent assay for plant caffeic acid O-methyltransferases. *Journal of Agricultural and Food Chemistry* 58: 5220-5226. 2010.
16. Funnell-Harris, D.L., J.F. Pedersen and **S.E. Sattler**. Soil and root populations of fluorescent *Pseudomonas* spp. associated with seedlings and field-grown plants are affected by sorghum genotype. *Plant and Soil Journal* 335: 439-455. 2010.
17. Saathoff, A.J., C.M. Tobias, **S.E. Sattler**, E.J. Haas, R.B. Mitchell, R. Cerny and G. Sarath. Switchgrass contains two cinnamyl alcohol dehydrogenases involved in lignin formation. *BioEnergy Research* 4: 120-133. 2011.

18. Saathoff, A. J., M. S. Hargrove, E. J. Haas, C. M. Tobias, P. Twigg, **S. Sattler** and G. Sarath. Switchgrass PviCAD1: Understanding residues important for substrate preferences and activity. *Applied Biochemistry and Biotechnology* 168: 1086-1100. 2012.
19. Saballos, A., **S. E. Sattler**, E. Sanchez, T. P. Foster, Z. Xin, C. Kang, J. F. Pedersen and W. Vermerris. Brown midrib2 (Bmr2) encodes the major 4-coumarate: Coenzyme A ligase involved in lignin biosynthesis in sorghum (*Sorghum bicolor* (L.) Moench). *Plant Journal* 70: 818-830. 2012.
20. **Sattler, S. E.**, N. A. Palmer, A. Saballos, A. M. Greene, Z. G. Xin, G. Sarath, W. Vermerris and J. F. Pedersen. Identification and Characterization of Four Missense Mutations in Brown midrib 12 (Bmr12), the Caffeic O-Methyltransferase (COMT) of Sorghum. *Bioenergy Research* 5: 855-865. 2012.
21. Pedersen, J. F., **S. E. Sattler** and W. F. Anderson. Evaluation of Public Sweet Sorghum A-Lines for Use in Hybrid Production. *BioEnergy Research* 6: 91-102. 2013.
22. **Sattler, S.** and D. Funnell-Harris. Modifying lignin to improve bioenergy feedstocks: strengthening the barrier against pathogens? *Frontiers in Plant Science* 4. 2013.
23. **Sattler, S. E.**, J. J. Toy, J. A. Okeno, D. L. Funnell-Harris and J. F. Pedersen. Registration of N614, A3N615, N616, and N617 Shattercane Genetic Stocks with Cytoplasmic or Nuclear Male Sterility and Juicy or Dry Midribs. *J. Plant Reg.* 7: 245-249. 2013.
24. Walker, A. M., R. P. Hayes, B. Youn, W. Vermerris, **S. E. Sattler** and C. Kang. Elucidation of the Structure and Reaction Mechanism of Sorghum Hydroxycinnamoyltransferase and Its Structural Relationship to Other Coenzyme A-Dependent Transferases and Synthases. *Plant Physiology* 162: 640-651. 2013.
25. Funnell-Harris, D. L., L. K. Prom, **S. E. Sattler** and J. F. Pedersen. Response of near-isogenic sorghum lines, differing at the P locus for plant colour, to grain mould and head smut fungi. *Annals of Applied Biology* 163: 91-101. 2013.
26. Funnell-Harris, D. L., **S. E. Sattler** and J. F. Pedersen. Characterization of fluorescent *Pseudomonas* spp. associated with roots and soil of two sorghum genotypes. *European Journal of Plant Pathology* 136: 469-481. 2013.
27. Green, A. R., K. M. Lewis, J. T. Barr, J. P. Jones, F. Lu, J. Ralph, W. Vermerris, **S. E. Sattler** and C. Kang. Determination of the Structure and Catalytic Mechanism of Sorghum bicolor Caffeic Acid O-Methyltransferase and the Structural Impact of Three brown midrib12 Mutations. *Plant Physiology* 165: 1440-1456. 2014.

28. Funnell-Harris, D. L., **S. E. Sattler** and J. F. Pedersen. Response of *Fusarium thapsinum* to Sorghum brown midrib Lines and to Phenolic Metabolites. *Plant Disease* 98: 1300-1308. 2014.
29. **Sattler, S. E.**, A. Saballos, Z. Xin, D. L. Funnell-Harris, W. Vermerris and J. F. Pedersen. Characterization of Novel Sorghum brown midrib Mutants from an EMS-Mutagenized Population. *G3: Genes|Genomes|Genetics* 4: 2115-2124. 2014.
30. Palmer, N. A., A. J. Saathoff, C. M. Tobias, P. Twigg, Y. Xia, K. P. Vogel, S. Madhavan, **S. E. Sattler** and G. Sarath. Contrasting metabolism in perenniating structures of upland and lowland switchgrass plants late in the growing season. *PloS one* 9: e105138. 2014.
31. Yerka, M. K., J. J. Toy, D. L. Funnell-Harris, **S. E. Sattler** and J. F. Pedersen. Registration of N619 to N640 grain sorghum lines with waxy or wild-type endosperm. *Journal of Plant Registrations* 9: 249-253. 2015.
32. Yerka, M. K., J. J. Toy, D. L. Funnell-Harris, **S. E. Sattler** and J. F. Pedersen. Registration of A/BN641 and RN642 waxy grain sorghum genetic stocks. *Journal of Plant Registrations* 9: 258-261. 2015.
33. Xie, S., X. Qin, Y. Cheng, D. Laskar, W. Qiao, S. Sun, L. H. Reyes, X. Wang, S. Y. Dai, **S. E. Sattler**, K. Kao, B. Yang, X. Zhang and J. S. Yuan. Simultaneous conversion of all cell wall components by an oleaginous fungus without chemi-physical pretreatment. *Green Chemistry* 17: 1657-1667. 2015.
34. Dowd, P. F. and **S. E. Sattler**. *Helicoverpa zea* (Lepidoptera: Noctuidae) and *Spodoptera frugiperda* (Lepidoptera: Noctuidae) Responses to *Sorghum bicolor* (Poales: Poaceae) tissues from lowered lignin lines. *Journal of Insect Science* 15: 162. 2015.
35. Funnell-Harris, D. L., **S. E. Sattler**, P. M. O'Neill, K. M. Eskridge and J. F. Pedersen. Effect of waxy (low amylose) on fungal infection of sorghum grain. *Phytopathology*. 105: 786-796. 2015.
36. Rinerson C.I., Scully E.D., Palmer N.A., Donze-Reiner T., Rabara R.C., Tripathi P., Shen Q. J., **Sattler S.E.**, Rohila J.S., Sarath G., Rushton P.J. The WRKY transcription factor family and senescence in Switchgrass. *Biomed Central (BMC) Genomics* 16: 912. 2015.
37. Yerka, M. K., J. J. Toy, D. L. Funnell-Harris, **S. E. Sattler**, J. F. Pedersen. Evaluation of interallelic waxy, heterowaxy, and wild-type grain sorghum hybrids. *Crop Science*. 56: 113-121. 2016.
38. Scully, E. D., T. Gries, D. L. Funnell-Harris, Z. Xin, F. A. Kovacs, W. Vermerris, and **S. E. Sattler**. Characterization of novel brown midrib 6 mutations affecting lignin biosynthesis in sorghum. *Journal of Integrative Plant Biology* 58: 136–149. 2016.

39. Scully, E. D., T. Gries, G. Sarath, N. A. Palmer, L. Baird, M. J. Serapiglia, B. S. Dien, A. A. Boateng, D. L. Funnell-Harris, P. Twigg, T. E. Clemente and **S. E. Sattler**. Overexpression of SbMyb60 impacts phenylpropanoid biosynthesis and alters secondary cell wall composition in *Sorghum bicolor*. *Plant Journal* 85: 378-395. 2016.
40. Anderson W. F., G. Sarath, S. Edme, M. D. Casler, R. B. Mitchell, C. M. Tobias, A. L. Hale, **S. E. Sattler** and J. E. Knoll. Dedicated Herbaceous Biomass Feedstock Genetics and Development. *Bioenergy Research* 9: 399-411. 2016.
41. Dowd P. F., D. L. Funnell-Harris and **S. E. Sattler**. Field damage of sorghum (*Sorghum bicolor*) with reduced lignin levels by naturally occurring insect pests and pathogens. *Journal of Pest Science* 89: 885-895. 2016.
42. Funnell-Harris D. L., P. M. O'Neill, **S. E. Sattler** and M. K. Yerka. Response of Sweet Sorghum Lines to Stalk Pathogens *Fusarium thapsinum* and *Macrophomina phaseolina*. *Plant Disease* 100: 896-903. 2016.
43. Godin B., N. Nagle, **S. Sattler**, R. Agneessens, J. Delcarte and E. Wolfrum. Improved sugar yields from biomass sorghum feedstocks: comparing low-lignin mutants and pretreatment chemistries. *Biotechnology for Biofuels* 9: 251. 2016.
44. Scully E. D., T. Donze-Reiner, H. Wang, T. E. Eickhoff, F. Baxendale, P. Twigg, F. Kovacs, T. Heng-Moss, **S. E. Sattler** and G. Sarath. Identification of an orthologous clade of peroxidases that respond to feeding by greenbugs (*Schizaphis graminum*) in C4 grasses. *Funct Plant Biol* 43. 2016.
45. Walker A. M., S. A. Sattler, M. Regner, J. P. Jones, J. Ralph, W. Vermerris, **S. E. Sattler** and C. Kang. The structure and catalytic mechanism of *Sorghum bicolor* Caffeoyl-CoA O-methyltransferase. *Plant Physiology* 172: 78-92. 2016.
46. Yerka M. K., J. J. Toy, D. L. Funnell-Harris, **S. E. Sattler** and J. F. Pedersen. Evaluation of Interallelic waxy, Heterowaxy, and Wild-Type Grain Sorghum Hybrids. *Crop Science* 56: 113-121. 2016.
47. Donze-Reiner T., N. A. Palmer, E. D. Scully, T. J. Prochaska, K. G. Koch, T. Heng-Moss, J. D. Bradshaw, P. Twigg, K. Amundsen, **S. E. Sattler** and G. Sarath. Transcriptional analysis of defense mechanisms in upland tetraploid switchgrass to greenbugs. *BMC Plant Biology* 17: 46. 2017.
48. Eudes A., T. Dutta, K. Deng, N. Jacquet, A. Sinha, V. T. Benites, E. E. K. Baidoo, A. Riche, **S. E. Sattler**, T. R. Northen, S. Singh, B. A. Simmons and D. Loqué. SbCOMT (Bmr12) is involved in the biosynthesis of triclin-lignin in sorghum. *PLoS ONE* 12. 2017.
49. Funnell-Harris D. L., P. M. O'Neill, **S. E. Sattler**, T. Gries, M. A. Berhow and J. F. Pedersen. Response of sorghum stalk pathogens to brown midrib plants and soluble phenolic extracts from near isogenic lines. *European Journal of Plant Pathology* 148: 941-953. 2017.

50. Jun S. Y., A. M. Walker, H. Kim, J. Ralph, W. Vermerris, **S. E. Sattler** and C. Kang. The Enzyme Activity and Substrate Specificity of Two Major Cinnamyl Alcohol Dehydrogenases in Sorghum (*Sorghum bicolor*), SbCAD2 and SbCAD4. *Plant Physiology* 174: 2128-2145. 2017.
51. Funnell-Harris D. L., E. D. Scully, **S. E. Sattler**, R. C. French, P. M. O'Neill and J. F. Pedersen. Differences in Fusarium species in brown midrib sorghum and in air populations in production fields. *Phytopathology* 107: 1353-1363. 2017.
52. Moural T. W., K. M. Lewis, C. Barnaba, F. Zhu, N. A. Palmer, G. Sarath, E. D. Scully, J. P. Jones, **S. E. Sattler** and C. Kang. Characterization of class III peroxidases from switchgrass. *Plant Physiology* 173: 417-433. 2017.
53. Palmer N. A., A. J. Saathoff, E. D. Scully, C. M. Tobias, P. Twigg, S. Madhavan, M. Schmer, R. Cahoon, **S. E. Sattler**, S. J. Edmé, R. B. Mitchell and G. Sarath. Seasonal below-ground metabolism in switchgrass. *Plant Journal* 92: 1059-1075. 2017.
54. Sattler S. A., A. M. Walker, W. Vermerris, **S. E. Sattler** and C. Kang. Structural and biochemical characterization of cinnamoyl-CoA reductases. *Plant Physiology* 173: 1031-1044. 2017.
55. Suzuki J. Y., T. D. Amore, B. Calla, N. A. Palmer, E. D. Scully, **S. E. Sattler**, G. Sarath, J. S. Lichty, R. Y. Myers, L. M. Keith, T. K. Matsumoto and S. M. Geib. Organ-specific transcriptome profiling of metabolic and pigment biosynthesis pathways in the floral ornamental progenitor species *Anthurium amnicola* Dressler. *Scientific Reports* 7. 2017.
56. Xin Z., J. Huang, A. R. Smith, J. Chen, J. Burke, **S. E. Sattler** and D. Zhao. Morphological characterization of a new and easily recognizable nuclear male sterile mutant of sorghum (*Sorghum bicolor*). *PLoS ONE* 12: e0165195. 2017.
57. Jun S. Y., S. A. Sattler, G. S. Cortez, W. Vermerris, **S. E. Sattler** and C. Kang. Biochemical and structural analysis of substrate specificity of a phenylalanine ammonia-lyase. *Plant Physiology* 176: 1452-1468. 2018.
58. Scully E. D., T. Gries, N. A. Palmer, G. Sarath, D. L. Funnell-Harris, L. Baird, P. Twigg, J. Seravalli, T. E. Clemente, and **S. E. Sattler**. Overexpression of *SbMyb60* in *Sorghum bicolor* impacts both primary and secondary metabolism. *New Phytologist*. 217: 82-104. 2018.
59. Funnell-Harris D. L., P. M. O'Neill and **S. E. Sattler**. Field response of near-isogenic brown midrib sorghum lines to fusarium stalk rot, and response of wildtype lines to controlled water deficit. *Plant Pathology* 67: 1474-1482. 2018.

60. Tetreault H. M., E. D. Scully, T. Gries, N. A. Palmer, D. L. Funnell-Harris, L. Baird, J. Seravalli, B. S. Dien, G. Sarath, T. E. Clemente and **S. E. Sattler**. Overexpression of the sorghum bicolor SbCCoAOMT alters cell wall associated hydroxycinnamoyl groups. *PLoS ONE* 13. 2018.
61. Burow G., R. Chopra, **S. Sattler**, J. Burke, V. Acosta-Martinez and Z. Xin. Deployment of SNP (CAPS and KASP) markers for allelic discrimination and easy access to functional variants for brown midrib genes *bmr6* and *bmr12* in *Sorghum bicolor*. *Molecular Breeding* 39. 2019.
62. Funnell-Harris D. L., **S. E. Sattler**, P. M. O'Neill, T. Gries, H. M. Tetreault and T. E. Clemente. Response of Sorghum Enhanced in Monolignol Biosynthesis to Stalk Rot Pathogens. *Plant disease* 103: 2277-2287. 2019.
63. Grover S., B. Wojahn, S. Varsani, **S. E. Sattler** and J. Louis. Resistance to greenbugs in the sorghum nested association mapping population. *Arthropod-Plant Interactions* 13: 261-269. 2019.
64. Tetreault H. M., S. Grover, E. D. Scully, T. Gries, N. A. Palmer, G. Sarath, J. Louis and **S. E. Sattler**. Global Responses of Resistant and Susceptible Sorghum (*Sorghum bicolor*) to Sugarcane Aphid (*Melanaphis sacchari*). *Frontiers in Plant Science* 10: 19. 2019.
65. Block A. K., C. T. Hunter, **S. E. Sattler**, C. Rering, S. McDonald, G. J. Basset and S. A. Christensen. Fighting on two fronts: Elevated insect resistance in flooded maize. *Plant Cell and Environment* 43: 223-234. 2020.
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