

## CURRICULUM VITAE

### NAME

Courtney Jahn

### ADDRESS

Bioagricultural Sciences and Pest Management  
College of Agricultural Sciences

### PHONE

(970) 491-6741

### EDUCATION

2008 Ph D, University of Wisconsin

2003 MS, University of Wisconsin

2000 BS, University of Wisconsin

### ACADEMIC POSITIONS

2017-2018 - Assistant Professor (College of Agricultural Sciences)

2016-2017 - Assistant Professor (College of Agricultural Sciences)

2015-2016 - Assistant Professor (College of Agricultural Sciences)

2014-2015 (College of Agricultural Sciences)

2012-2013 (College of Agricultural Sciences)

2011-2012 (College of Agricultural Sciences)

### OTHER POSITIONS

2011 - Present Assistant Professor, BSPM, Colorado State University, Fort Collins, CO, United States.

2008 - 2011 Post Doc, Colorado State University.

### PUBLISHED WORKS

#### **Refereed Journal Articles**

Hantzis, L., Kroh, G., Jahn, C. E., Cantrell, M., Peers, G., Pilon, M., Ravet, K. A program for iron economy during deficiency in Arabidopsis rosettes targets specific Fe proteins. *Plant Physiology*, Peer Reviewed/Refereed

Turner, M., Heuberger, A., Kirkwood, J. S., Collins, C. C., Wolfrum, E. J., Broeckling, C. D., Prenni, J. E., Jahn, C. E. (2016). Morphological, Physiological and Metabolic Diversity in Sorghum and Association to Biomass Composition and Yield. *Frontiers in Plant Science*, 7(953).

- Tanger, P., Vega-Sánchez, M. E., Fleming, M. B., Tran, K., Singh, S., Abrahamson, J. B., Jahn, C. E., Santoro, N., Naredo, E. B., Baraoidan, M. (2015). Cell Wall Composition and Bioenergy Potential of Rice Straw Tissues Are Influenced by Environment, Tissue Type, and Genotype. *BioEnergy Research*, 1-18., Peer Reviewed/Refereed
- Tanger, P., Vega-Sánchez, M. E., Fleming, M. B., Tran, K., Singh, S., Abrahamson, J. B., Jahn, C. E., Santoro, N., Naredo, E. B., Baraoidan, M., Danku, J. M.C., Salt, D. E., McNally, K. L., Simmons, B. A., Ronald, P. C., Leung, H., Bush, D. R., McKay, J. K., Leach, J. E. (2015). Cell Wall Composition and Bioenergy Potential of Rice Straw Tissues Are Influenced by Environment, Tissue Type, and Genotype. *BioEnergy Research*, 1-18., Peer Reviewed/Refereed
- Collins, C., Maruthi, M., Jahn, C. E. (2015). CYCD3 D-type cyclins regulate cambial cell proliferation and secondary growth in Arabidopsis. *Journal of Experimental Botany*, erv218., Peer Reviewed/Refereed
- Collins, C., Gowda, M., Jahn, C. E. Arabidopsis CYCD3 D-type cyclins regulate cambial cell proliferation during vascular development and secondary growth. *Journal of Experimental Botany*., Peer Reviewed/Refereed
- Turner, M., Kirkwood, J., Collins, C., Heuberger, A., Broeckling, C., Prenni, J., Jahn, C. E. Morphological, Physiological and Metabolic Diversity in Sorghum and Association to Biomass Composition and Yield. *Journal of Experimental Botany*., Peer Reviewed/Refereed
- Yasin, M., Al Mehdawi, A., Jahn, C. E., Anwar, A., Turner, M., Faisal, M., Pilon-Smits, E. (2015). Seleniferous soils as a source for production of selenium-enriched foods and potential of bacteria to enhance plant selenium uptake. *Plant and Soil*, 386(1-2), 385-394., Peer Reviewed/Refereed
- Tanger, P., Vega-Sánchez, M., Fleming, M., Tran, K., Singh, S., Abrahamson, J., Jahn, C. E., Santoro, N., Naredo, E., Baraoidan, M., Danku, J., Salt, D., McNally, K., Leung, H., Ronald, P., Bush, D., McKay, J. K., Leach, J. E. (2015). Cell wall composition of rice straw varies among environments, varieties, and tissue types: impacts on bioenergy potential. *BioEnergy Research*., Peer Reviewed/Refereed
- Tanger, P., Field, J. L., Jahn, C. E., DeFoort, M., Leach, J. E. (2013). Biomass for thermochemical conversion: targets and challenges. *Frontiers in Plant Science*, 4, 218. doi: 10.3389/fpls.2013.00218, Peer Reviewed/Refereed
- (2011). Genetic variation in biomass traits among 20 diverse rice varieties. *Plant Physiol*, 155, 157-168., Peer Reviewed/Refereed
- (2011). The *Dickeya dadantii* biofilm matrix consists of cellulose nanofibers and is an emergent property dependent upon the type III secretion system and the cellulose synthesis operon. *Microbiol*, 157, 2733-44., Peer Reviewed/Refereed
- (2008). Evaluation of isolation methods and RNA integrity for bacterial RNA quantitation. *J Microbiol Methods*, 75, 318-324., Peer Reviewed/Refereed
- (2008). Niche specificity and the variable fraction of the *Pectobacterium* pan genome. *Mol Plant Microbe Interact*, 12, 1549-1560., Peer Reviewed/Refereed
- (2008). The flagellar sigma factor FliA is required for *Dickeya dadantii* virulence. *Mol Plant Microbe Interact*, 21, 1431-1442., Peer Reviewed/Refereed
- (2007). The role of cellulose and O-antigen capsule in the colonization of plants by *Salmonella enterica*. *Mol Plant*

*Microbe Interact*, 20, 1083-1091., Peer Reviewed/Refereed

(2005). Cultivation of mesophilic soil crenarchaeotes in enrichment cultures from plant roots. *Applied and Environmental Microbiology*, 71, 4751-4760., Peer Reviewed/Refereed

(2005). The *Erwinia chrysanthemi* type III secretion system is required for multicellular behavior. *Journal of Bacteriology*, 187, 639-648., Peer Reviewed/Refereed

### Non-Refereed Journal Articles

**Lavergne, F. D.**, Broeckling, C. D., Cockrell, D. M., Haley, S. D., Peairs, F. B., Jahn, C. E., Heuberger, A. (2018). GC-MS Metabolomics to Evaluate the Composition of Plant Cuticular Waxes for Four *Triticum aestivum* Cultivars. *International Journal of Molecular Sciences*, 19(2). <http://www.mdpi.com/1422-0067/19/2/249>, Not Peer Reviewed/Refereed

Collins, C., Gowda, M., Jahn, C. E. Arabidopsis CYCD3 D-type cyclins regulate cambial cell proliferation during vascular development and secondary growth. *Plant Physiology*., Not Peer Reviewed/Refereed

Johnson, J. J., Hain, J. P., Jones, S. M., Larson, K., Jahn, C. E., Turner, M., Bartolo, M. E., Davidson, J. W., Brick, M. A., Schwartz, H. F., Vigil, M., Meyer, R., Jewell, K. S. (2014). 2013 Colorado Spring Crop Variety Performance Trial Results. *High Plains Journal*., Not Peer Reviewed/Refereed

Jahn, C. E., McKay, J. K., Mauleon, R., Stephens, J., McNally, K. L., Bush, D. R., Leung, H., Leach, J. E. (2011). Genetic variation in biomass traits among 20 diverse rice varieties. *Plant physiology*, 155(1), 157-68., Not Peer Reviewed/Refereed

(2012). *Biomass Yield, Bioenergy Trait Characteristics, and Cell-Wall Composition of Dryland Sweet Pearl Millet Grown at Multiple Locations in Colorado*.: ASA-CSSA-SSSA International Annual Meeting Cincinnati, OH October 21-24., Not Peer Reviewed/Refereed

(2012). *Comprehensive approach to improve biofuels feedstocks using rice as a model system*.: Plant and Animal Genome San Diego, CA January 14-18., Not Peer Reviewed/Refereed

(2012). *Comprehensive approach to improve biofuels feedstocks using rice as a model system*.: DOE Plant Feedstocks PI meeting, San Diego, CA January 13., Not Peer Reviewed/Refereed

(2012). *Weight loss at Night? Morphological and Night-time Physiological Factors that Negatively Impact Biomass Accumulation in Rice*.: ASA-CSSA-SSSA International Annual Meeting Cincinnati, OH October 21-24., Not Peer Reviewed/Refereed

(2011). *Biomass accumulation in wide crosses between wild and domesticated rice*.: USDA-DOE Plant Feedstock Genomics for Bioenergy Awards Meeting Arlington, VA April 10-13., Not Peer Reviewed/Refereed

(2011). *Fine tuning photosynthesis and cell-wall composition for improved biofuels feedstocks*.: Sustainable Bioenergy and Bioproducts Project Directors Meeting Arlington, VA October, 24-26., Not Peer Reviewed/Refereed

(2011). *Genome analyses to understand durable disease resistance in rice*.: Genome-Enabled Integration of Research in Plant Pathogen Systems T Wolpert, T Shiraishi, J Glazebrook, (eds), APS Press, Minneapolis, MN., Not Peer Reviewed/Refereed

(2011). *Identification of candidate genes using rice mutants for biomass engineering in switchgrass*.: USDA-DOE

- Plant Fedstock Genomics for Bioenergy Awardes Meeting Arlington, VA April 10-13., Not Peer Reviewed/Refereed
- (2011). *Night-time stomatal conductance and transpiration negatively impact biomass accumulation.*: USDA-DOE Plant Fedstock Genomics for Bioenergy Awardes Meeting Arlington, VA April 10-13., Not Peer Reviewed/Refereed
- (2011). *Targets to improve quantity and quality of lignocellulosic feedstocks.*: Sustainable Bioenergy Development Center Seminar Series Fort Collins, CO November 29., Not Peer Reviewed/Refereed
- (2010). *Screening a diverse set of rice varieties for variation in biomass and resistance to plant disease.*: 10th US-Japan Genome-Enabled Integration of Research in Plant Pathogen Systems Corvallis, OR January 24-28., Not Peer Reviewed/Refereed
- (2009). *Food vs. Fuel.*: Crops for Health Open House Fort Collins, CO June 26., Not Peer Reviewed/Refereed
- (2009). *Genetic variation in biomass traits among 20 diverse rice varieties.*: 6th International Rice Genetics Symposium, Manila, Philippines. November 16-19., Not Peer Reviewed/Refereed
- (2009). *Genetic variation in biomass traits among 20 diverse rice varieties.*: Colorado Center for Bio refining and Biofuels Fall Semi Annual Meeting Fort Collins, CO September 21., Not Peer Reviewed/Refereed
- (2009). *Identification of genes that control biomass production using rice as a model system.*: Colorado State Clean Energy Expo Fort Collins, CO May 5., Not Peer Reviewed/Refereed
- (2008). *A horizontally acquired cellulose synthase operon in *Dickeya dadantii* contributes to biofilm formation, attachment to plants.*: Annual meeting of the American Phytopathological Society Minneapolis, MN July 26-30., Not Peer Reviewed/Refereed
- (2008). *Using the *Oryza* SNP set to characterize genes important to biofuel production.*: 6th International Symposium of Rice Functional Genomics (ISRFG) JeJu, Korea November 10-12., Not Peer Reviewed/Refereed
- (2007). *The flagellar sigma factor *FliA* is required for full virulence and biofilm formation of *Dickeya dadantii*.*: Joint Meeting of the American Phytopathological Society and the Society of Nematologists San Diego, CA July 28-August 1., Not Peer Reviewed/Refereed
- (2006). **Dickeya dadantii* cellulose production differs from related enterobacteria.*: 11th International Conference on Plant Pathogenic Bacteria Edinburgh, Scotland July 10-14., Not Peer Reviewed/Refereed
- (2005). **Erwinia chrysanthemi* cellulose production differs from related enterobacteria.*: 12th Annual Midwest Microbial Pathogenesis Conference Minneapolis, MN October 14-16., Not Peer Reviewed/Refereed
- (2005). **Erwinia chrysanthemi* cellulose synthesis.*: Joint Meeting of the Three Divisions of the International Union of Microbiological Societies San Francisco, CA July 23-28., Not Peer Reviewed/Refereed
- (2005). *Purple-bordered leaf spot.*: University of Wisconsin-Extension XHT1149., Not Peer Reviewed/Refereed
- (2004). *Cellulose synthesis in *Erwinia chrysanthemi*.*: 11th Annual Midwest Microbial Pathogenesis Conference East Lansing, MI October 1-3., Not Peer Reviewed/Refereed
- (2004). *Cellulose synthesis in *Erwinia chrysanthemi*. American Society for Microbiology.*: North Central Branch 64th Annual Meeting Madison, WI November 12-13., Not Peer Reviewed/Refereed

(2003). *Cultivation of mesophilic soilrenarchaeota in enrichments from tomato roots*.: American Society for Microbiology 103rd General Meeting, Washington, DC May 18-22., Not Peer Reviewed/Refereed

### **AES Report/Bulletin**

Jahn, C. E. (2014). The Wheat Stem Sawfly--New Pest of Colorado Wheat from an Old Colorado Insect. *2014 Colorado Winter Wheat Variety Performance Trials* (TR14-8 ed.): CSU, CAS, AES, Dept. of Soil & Crop Sci., Extension, PRC., Not Peer Reviewed/Refereed

Johnson, J. J., Haley, S. D., Bartolo, M. E., Larson, K., Vigil, M., Bosley, B., Meyer, R., Trujillo, W., Jones, S. M., Hain, J., Davidson, J. W., Randolph, T. L., Peairs, F. B., Jahn, C. E., Novak, R. A., Davis, J. G., Mostek, G. (2014). *Making better decisions: 2014 Colorado wheat variety performance trials*. (TR14-8 ed., pp. 51): Colorado Agricultural Experiment Station., Peer Reviewed/Refereed

Larson, K., Johnson, J. J., Jahn, C. E., Jones, S. M., Pettinger, B. T. (2014). *2013 Sorghum Hybrid Performance Trials in Eastern Colorado* (TR14-1 ed.): CSU, CAS, AES, Dept. of Soil & Crop Sci., Extension, PRC. [webdoc.agsci.colostate.edu/aes/PRC/pubs/tr14-1.pdf](http://webdoc.agsci.colostate.edu/aes/PRC/pubs/tr14-1.pdf), Peer Reviewed/Refereed

Larson, K., Pettinger, B. T., Harn, D., Johnson, J. J., Haley, S. D., Trujillo, W., Jahn, C. E., Jones, S. M. (2014). *Plainsman Research Center 2013 Research Reports* (TR14-2 ed.): Colorado Agricultural Experiment Station, CSU. [webdoc.agsci.colostate.edu/aes/PRC/pubs/tr14-2.pdf](http://webdoc.agsci.colostate.edu/aes/PRC/pubs/tr14-2.pdf), Peer Reviewed/Refereed

Larson, K., Johnson, J. J., Jahn, C. E., Pettinger, B. T. (2013). *2012 Sorghum Hybrid Performance Trials in Eastern Colorado* (TR13-1 ed., pp. 25): Colorado Agricultural Experiment Station, CSU. [http://www.extsoilcrop.colostate.edu/CropVar/documents/grainsorghum/2012\\_Sorghum\\_TR.pdf](http://www.extsoilcrop.colostate.edu/CropVar/documents/grainsorghum/2012_Sorghum_TR.pdf), Peer Reviewed/Refereed

Larson, K., Pettinger, B. T., Harn, D., Johnson, J. J., Haley, S. D., Jahn, C. E., Jones, S. M., Trujillo, W. (2013). *Plainsman Research Center 2012 Research Reports* (TR13-2 ed., pp. 95): Agricultural Experiment Station, CSU. [www.colostate.edu/depts/prc/pubs/tr13-2.pdf](http://www.colostate.edu/depts/prc/pubs/tr13-2.pdf), Peer Reviewed/Refereed

### **Abstract**

Clark, A. L., Norton, A. P., Jahn, C. E. (2016). *Induced herbivory defense increases Canada thistle susceptibility to fungal pathogens*.: CSU Graduate Student Showcase., Not Peer Reviewed/Refereed

Miller, S. B., Turner, M., Jahn, C. E. (2016). *Morphological & Physiological Responses of Nine Sorghum Genotypes Under Pre-flowering Drought-Stress*.: BSPM Seminar Series., Not Peer Reviewed/Refereed

Sindt, N. M., Prenni, J. E., Manmathan, H. K., Haley, S. D., Jahn, C. E., Heuberger, A. (2016). *Physiologic and metabolic effects of a mitochondrial inhibitor fungicide on Colorado hard red winter wheat varieties*.: CSU Graduate Student Showcase., Not Peer Reviewed/Refereed

Clark, A. L., Norton, A. P., Jahn, C. E. (2016). *Epidemiology & Impact of a Rust Fungus on Canada Thistle*.: CSU Front Range Student Ecology Symposium., Not Peer Reviewed/Refereed

Miller, S. B., Turner, M., Kirkwood, J. S., Broeckling, C. D., Prenni, J. E., Jahn, C. E. (2015). *Sorghum Whole-Plant Responses to Pre-flowering Dourght Stress*.: ASA-CSSA-SSSA., Not Peer Reviewed/Refereed

Miller, S. B., Kirkwood, J. S., Broeckling, C. D., Prenni, J. E., Jahn, C. E. (2015). *Growth substrate and plant genotype influence sorghum root exudation*.: CSU Graduate Student Showcase., Not Peer Reviewed/Refereed

Miller, S. B., Kirkwood, J. S., Broeckling, C. D., Prenni, J. E., Jahn, C. E. (2015). *Sorghum root exudation is affected by genotype and growth media: implications to the rhizosphere microbiome.*: Phytobiomes., Not Peer Reviewed/Refereed

baniszewski, J., Turner, M., Jahn, C. E. (2013). *Influence of Drought Stress on Bioenergy Traits in Sorghum.*: ASA-CSSA-SSSA., Not Peer Reviewed/Refereed

Turner, M., baniszewski, J., Jones, S. M., Johnson, J. J., Jahn, C. E. (2013). *Varietal Differences and the Impact of Drought Stress on Bioenergy Traits of Forage and Sweet Sorghum.*: ASA-CSSA-SSSA., Not Peer Reviewed/Refereed

Tanger, P., Vega-Sanchez, M., Jahn, C. E., Santoro, N., Ronald, P., McKay, J. K., Bush, D., Leach, J. E. (2013). *Environmental variation in plant cell wall composition and implications for bioenergy.*: Colorado Center for Biorefining and Biofuels., Not Peer Reviewed/Refereed

Fulton-Smith, S., Jahn, C. E., Cotrufo, M. F. (2013). *Exploring the Potential for Biofuel Crops to Sequester Carbon in the Deep Soil.*: Colorado Center for Biorefining and Biofuels., Not Peer Reviewed/Refereed

Turner, M., Jahn, C. E., baniszewski, J., Jones, S. M., Johnson, J. J. (2013). *Influence of Water Limitation on Bioenergy Traits in Sweet and Forage Sorghum.*: Colorado Center for Biorefining and Biofuels., Not Peer Reviewed/Refereed

Turner, M., Jahn, C. E., Larson, C. R., Jones, S. M., Johnson, B. T. (2013). Influence of Drought Stress on Bioenergy Traits in Sweet Sorghum. *Our Energy Future-An Earth Week Symposium on Clean Energy.*: CSU Clean Energy Supercluster., Not Peer Reviewed/Refereed

### **Magazine/Trade Publication**

Johnson, J. J., Hain, J. P., Jones, S. M., Larson, K., Jewett, F. G., Jahn, C. E., Turner, M., Bartolo, M. E., Davidson, J. W., Brick, M. A., Schwartz, H. F., Vigil, M., Jewell, K. S. (2012). *2012 Colorado Spring Crop Variety Performance Trial Results.*: High Plains Journal., Not Peer Reviewed/Refereed

### **Newsletter**

Jahn, C. E. (2014). Energy Crops for Now and in the future. *Southeast Area Extension Farm and Ranch Newsletter.*: CSU Extension., Not Peer Reviewed/Refereed

### **Technical Report**

Jahn, C. E., Turner, M., Johnson, J. J., Hain, J. P., Jones, S. M., Schneekloth, J., Nielsen, D., Vigil, M. F. (2013). Dryland and Irrigated Forage Sorghum Performance Trial. *Central Great Plains Research Station 2012 Research Progress Report.*: USDA-ARS., Not Peer Reviewed/Refereed

### **PAPERS PRESENTED/SYMPOSIA/INVITED LECTURES/PROFESSIONAL MEETINGS/WORKSHOPS**

May 3, 2017, "Variation in Epicuticular Wax Composition and Structure Among Tissues and Cultivars of *Triticum aestivum*", Colorado Biological Mass Spectrometry Society Meeting.

November 15, 2016, "Induced herbivory defense increases Canada thistle susceptibility to fungal pathogens", CSU Graduate Student Showcase.

November 15, 2016, "Morphological & Physiological Drought Tolerance Characterization of Nine Sorghum Genotypes", CSU Graduate Student Showcase.

November 15, 2016, "Physiologic and metabolic effects of a mitochondrial inhibitor fungicide on Colorado hard red winter wheat varieties.", CSU Graduate Student Showcase.

September 28, 2016, "Sorghum Whole-Plant Responses to Pre-flowering Drought Stress", Bioagricultural Science and Pest Management Seminar Series.

February 23, 2016, "Epidemiology & Impact of a Rust Fungus on Canada Thistle.", CSU Front Range Student Ecology Symposium.

February 3, 2016, "Creating a sustainable food future in the face of increasing environmental stress", College of Agricultural Sciences Research Seminar Series.

November 15, 2015, "Sorghum Whole-Plant Responses to Pre-flowering Drought Stress", ASA-CSSA-SSSA Interantional Annual Meeting.

September 29, 2015, "Sorghum & the below grown environment: an interaction", 2015 Sorghum Field Days.

September 1, 2015, "Identification of Physiological, Morphological and Metabolic Traits to Enhance Biomass Accumulation and Drought Response in Sorghum", Sorghum Improvement Conference of North America, (Presenter) Jahn, C. E.

June 30, 2015, "Sorghum root exudation is affected by genotype and growth media: implications to the rhizosphere microbiome", Phytobiomes.

June 11, 2015, "How Will We Nourish our Planet in the Face of Projected Population Growth?", Colorado State University Research Program and Alumni Reception. Global Grand Challenges: CSU Research and Translation, CSU OVRP.

June 4, 2015, "Sorghum, drought tolerance, and how to harness the phytobiome", Colorado Center for Biorefining and Bioproducts NSF-REU Summer Seminar Series, Colorado Center for Biorefining and Bioproducts.

November 5, 2014, "The Relationship of Physiological, Morphological and Metabolic Traits to Biomass Accumulation and Drought Response in Sorghum", ASA, CSSA & SSSA International Annual Meeting, (Presenter) Jahn, C. E., Long Beach, CA.

October 27, 2014, "New Screening tools for Production Efficiency", CSU San Luis Valley Research Center--Industry Workshop, Alamosa, CO.

June 11, 2014, "Translation of molecular biology and physiology to improve bioenergy traits in rice and sorghum", North Central Division American Phytopathological Society Mtg, Madison, WI.

April 25, 2014, "Metabolic, morphological, and physiological factors that influence bioenergy traits in sorghum", Colorado Center for Biorefining and Biofuels Semi-annual Meeting, C2B2, Boulder, CO.

April 25, 2014, "Evaluation of Drought Stress on Bioenergy Traits in Sorghum and Millet", CSU Ventures Innovation symposium, CSU Ventures, (Presenter) Jahn, C. E., Fort Collins, CO.

April 25, 2014, "The relationship of Physiological, Morphological, and Metabolic Traits to Biomass Accumulation and Drought Response in Sorghum", CSU Ventures Innovation symposium, CSU Ventures, (Presenter) Jahn, C. E., Fort Collins, CO.

April 17, 2014, "Evaluation of morphology, physiology, and biochemistry for improved bioenergy traits in

sorghum", Powerhouse Grand Opening Poster Session, (Presenter) Turner, M., Fort Collins, CO.

April 15, 2014, "Evaluation of drought tolerance and energy traits on African landrace sorghu", Undergraduate Research and Creativity Showcase, (Presenter) Warneke, B., Fort Collins, CO.

February 28, 2014, "Role of primary and secondary metabolism in biomass yield and resistance to drought stress in the bioenergy crop sorghum", Cell and Molecular Biology Poster Symposium, (Presenter) Jahn, C. E., Fort Collins, CO.

January 10, 2014, "Straw composition variation between varieties, tissue types and environments and impacts on bioenergy performance", USDA/DOE Plant Feedstocks Genomics for Bioenergy PI/PD Meeting, DOE, Plant and Animal Genome Meegings, SanDiego, CA.

November 6, 2013, "Influence of Drought Stress on Bioenergy Traits in Sorghum", 2013 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA, (Presenter) Baniszewski, J., Tampa, FL.

November 3, 2013, "Varietal Differences and the Impact of Drought Stress On Bioenergy Traits of Forage and Sweet Sorghum", 2013 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA, (Presenter) Turner, M., Tampa, FL.

October 17, 2013, "Environmental variation in plant cell wall composition and implications for bioenergy", Colorado Center for Biorefining and Biofuels Spring Semi-Annual Meeting, Colorado Center for Biorefining and Biofuels, (Presenter) Tanger, P., Fort Collins, CO.

October 17, 2013, "Influence of Water Limitation on Bioenergy Traits in Sweet and Forage Sorghum", Colorado Center for Biorefining and Biofuels Spring Semi-Annual Meeting, Colorado Center for Biorefining and Biofuels, (Presenter) Turner, M., Fort Collins, CO.

October 17, 2013, "Sustainable Bioenergy: Exploring The Potential For Biofuel Crops To Sequester Carbon In The Deep Soil", Colorado Center for Biorefining and Biofuels Spring Semi-Annual Meeting, Colorado Center for Biorefining and Biofuels, (Presenter) Fulton-Smith, S., Fort Collins, CO.

August 16, 2013, "Can Biofuel Crops Contribute to Soil Carbon Storage In Deep Soil?", Front Range Isotope Day Symposium, (Presenter) Fulton-Smith, S., Fort Collins, CO.

August 1, 2013, "Influence of Drought Stress on Bioenergy Traits in Sorghum", 2013 C2B2 NSF-REU Poster Session, Colorado Center for Biorefining and Biofuels, (Presenter) Baniszewski, J., Boulder, CO.

April 18, 2013, "Biomass Panel Discussion: CSU's Role in Displacement of Petrochemicals with Renewable Options", Our Energy Future-An Earth Week Symposium on Clean Energy, Fort Collins, CO.

April 18, 2013, "Sorghum Varietal Performance and Bioenergy Traits Under Dryland and Irrigated Conditions", Our Energy Future-An Earth Week Symposium on Clean Energy, (Presenter) Turner, M., Fort Collins, CO.

April 9, 2013, "Sorghum Trial Results in Eastern Colorado", Colorado Sorghum Producers Meeting, Colorado Sorghum Producers, (Presenter) Larson, K., Springfield, Colorado.

January 24, 2013, "2012 Forage and Sweet Sorghum Variety Trials", Central Great Plains Research Station 2012 Research Progress Meeting, USDA-CSU, (Presenter) Jones, S. M., Akron, CO.

2012, "C Jahn, L DeRose-Wilson, P Tanger, A Broz, B Broeckling, M Baroidan, A Bordeos, M Naredo, E Wolfrum, K McNally,



A Kern, B Zhao, J McKay, D Bush, H Leung, J Leach. Comprehensive approach to improve biofuels feedstocks using rice as a model system. DOE Plant Feedstocks PI meeting, San Diego, CA. January 13, 2012".

2012, "C Jahn, L DeRose-Wilson, P Tanger, A Broz, B Broeckling, M Baroidan, A Bordeos, M Naredo, E Wolfrum, K McNally, A Kern, B Zhao, J McKay, D Bush, H Leung, J Leach. Comprehensive approach to improve biofuels feedstocks using rice as a model system. Plant and Animal Genome. San Diego, CA. January 14-18, 2012".

2012, "C Jahn. The American Phytopathological Society's Education Efforts. 2012 National Academic Programs Summit. Loveland, CO. June 17-19, 2012".

2012, "C. Jahn. Form and Function-New Targets to Improve Bioenergy Feedstocks. Sweet Sorghum Ethanol Association Annual Meeting. Orlando, FL. January 26-27, 2012".

2012, "Jahn, C. M. Turner, S. Sauer, J. Brummer, G. McMaster, G. Buchleiter, J. Johnson. Biomass Yield, Bioenergy Trait Characteristics, and Cell-Wall Composition of Dryland Sweet Pearl Millet Grown at Multiple Locations in Colorado. ASA-CSSA-SSSA International Annual Meeting. Cincinnati, OH. October 21-24, 2012".

2012, "Jahn, C. The Path Forward: Targets to Improve Next Generation Bioenergy Feedstocks. Department of Soil and Crops Seminar Series. Fort Collins, CO. November 29, 2012".

2012, "Jahn, C., L. DeRose-Wilson, J. McKay, D. Bush, H. Leung, J. Leach. Weight loss at Night? Morphological and Night-time Physiological Factors that Negatively Impact Biomass Accumulation in Rice. ASA-CSSA-SSSA International Annual Meeting. Cincinnati, OH. October 21-24, 2012".

2011, "C Jahn, L DeRose-Wilson, P Tanger, A Broz, M Baroidan, A. Bordeos, B. Broeckling, E. Wolfrum, J. McKay, D. R.

Bush, H. Leung, J. Leach. Fine tuning photosynthesis and cell-wall composition for improved biofuels feedstocks. Sustainable Bioenergy and Bioproducts Project Directors Meeting. Arlington, VA. October, 24-26, 2011".

2011, "C Jahn. Targets to improve quantity and quality of lignocellulosic feedstocks. Sustainable Bioenergy Development Center Seminar Series. Fort Collins, CO. November 29, 2011".

2011, "Jahn, C. Genetic analysis of *Oryza sativa*: morphological and physiological traits that contribute to plant biomass. Colorado State University, Department of Soil and Crops spring seminar series, Fort Collins, CO. February 17, 2011".

2011, "Jahn, C. Research ethics: Seeing black and white in a gray world. Colorado State University, Bioagricultural Sciences and Pest Management Spring Seminar Series. Fort Collins, CO. January 26, 2011".

2011, "Jahn, C. Using rice as a model to identify genetic variation in traits related to biomass. CO-WY USDA-ARS spring seminar series. Fort Collins, CO. February 14, 2011".

2010, "Jahn, C. Exploiting diversity of biomass traits: What we have learned from rice. Plant Super Group. Fort Collins, CO. March 26, 2010".

2010, "Jahn, C. Understanding physiological and morphological traits that contribute to plant biomass: Lessons from rice. University of Northern Colorado, Biology Seminar Series. Greeley, CO. October 29, 2010".

2010, "Jahn, C. Unraveling plant biomass traits--lessons from rice. Western Great Plains Sustainable Feedstock Conference. Fort Collins, CO. September 15, 2010".

2010, "Jahn, C., I. Oña, J. Stephens, C. Vera Cruz, D. Bush, H. Leung, J. McKay, J. Leach. Screening a diverse set of rice

varieties for variation in biomass and resistance to plant disease. 10th US-Japan Genome-Enabled Integration of Research in Plant Pathogen Systems Corvallis, OR. January 24-28, 2010."

2009, "Jahn, C. Approaches to Understanding Biomass Traits in Rice. Yunnan Academy of Agricultural Sciences, Kunming, China. August 10, 2009."

2009, "Jahn, C. E. RNA integrity for bacterial RNA quantitation. Quantitative PCR Meeting San Diego, CA. March 16-17, 2009."

2009, "Jahn, C. Identification of Candidate Genes for Increased Biomass Production. 2009 Colorado Center for Biorefining and Biofuels Spring Semi-Annual Meeting. Boulder, CO. February 5, 2009."

2009, "Jahn, C., J. Stephens, B. Mason, S. Broadstone, D. Bush, H. Leung, J. McKay, J. Leach. Genetic variation in biomass traits among 20 diverse rice varieties. 2009 6th International Rice Genetics Symposium, Manila, Philippines. November 16-19, 2009."

2008, "Jahn C., J. Apodaca, N. Perna, and A. Charkowski. A horizontally acquired cellulose synthase operon in *Dickeya dadantii* contributes to biofilm formation and attachment to plants. 2008 Annual meeting of the American Phytopathological Society. Minneapolis, MN. July 26-30th, 2008."

2008, "Jahn, C. and A. Charkowski. Should I stay or should I go? Biofilm formation in the plant pathogen *Dickeya dadantii*. University of Wisconsin-Madison Microbial Pathogenesis and Host Responses Group Seminar Series. Madison, WI. March 24, 2008."

2007, "Jahn, C. and A. Charkowski. The flagellar sigma factor FliA is required for full virulence and biofilm formation of *Dickeya dadantii*. 2007 Joint Meeting of the American Phytopathological Society and the Society of

Nematologists. San Diego, CA. July 28-August 1, 2007."

2006, "Jahn, C., M.-N. Yap, M. Hibbing, N. Perna, and A. Charkowski. Dickeya dadantii cellulose production differs from related enterobacteria. 11th International Conference on Plant Pathogenic Bacteria. Edinburgh, Scotland. July 10-14, 2006."

**OTHER ACTIVITIES/ACCOMPLISHMENTS – PUBLICATIONS/SCHOLARLY RECORD**

- (September 9, 2015 - Present). Workshop, "TILT Flipped Classrooms Workshop," CSU The Institute For Learning and Teaching, Fort Collins, CO, United States. Approximate Number of Hours Spent Per Year: 4.
- (November 17, 2016). Seminar, "Supporting First Generation and Historically Underrepresented Students," The Institute for Learning and Teaching Master Teacher Initiative, Fort Collins, CO, United States.
- (September 30, 2016). Seminar, "What I learned at NCORE: College of Agricultural Sciences participants at the National Conference for Race and Ethnicity in Higher Education," The Institute for Learning and Teaching Master Teacher Initiative, Fort Collins, CO, United States.
- (May 18, 2016 - May 19, 2016). Conference Attendance, "2016 TILT Summer Conference on Learning, Teaching, and Critical Thinking," CSU The Institute For Learning and Teaching (TILT), Fort Collins, CO, United States.
- (November 2, 2014 - November 5, 2014). Professional Meeting, "ASA, CSSA & SSSA International Annual Meeting," ASA, CSSA & SSSA, Long Beach, CA, United States.
- (September 11, 2014 - October 23, 2014). Short Course, "Presentation as a Theatrical Art," The Institute for Learning and Teaching (TILT), Fort Collins, CO, United States.
- (September 1, 2014 - September 3, 2014). Professional Meeting, "Sorghum Improvement Conference of North America," Manhattan, KS, United States.
- (November 2, 2013 - November 6, 2013). Professional Meeting, "ASA, CSSA & SSSA International Annual Meeting," ASA, CSSA & SSSA, Tampa, FL, United States.
- (October 21, 2012 - October 24, 2012). Professional Meeting, "ASA, CSSA & SSSA International Annual Meeting," ASA, CSSA & SSSA, Cincinnati, OH, United States.

**TEACHING:**

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2017	Fall	BSPM698 - Research	77	14
2017	Spring	BSPM787 - Internship	1	1
2017	Spring	BSPM698 - Research	28	9
2017	Spring	BSPM798 - Research	86	16
2016	Fall	AGRI601 - Bioenergy Technology	3	0
2016	Fall	AGRI601 - Bioenergy Technology - Lab	0	0
2016	Fall	BSPM500 - Foundations of Bioagricultural Sciences	2	15
2016	Fall	BSPM698 - Research	18	11

2016	Fall	BSPM798 - Research	18	18
2016	Fall	BSPM792 - Seminar	2	7
2016	Spring	BSPM698 - Research	18	12
2016	Spring	BSPM798 - Research	18	14
2015	Fall	BSPM581A1 - Fundamentals of Bioag Sciences and Pest Mgmt	2	9
2015	Fall	BSPM698 - Research	18	10
2015	Fall	BSPM798 - Research	18	9
2015	Spring	BSPM361 - Elements of Plant Pathology	3	56
2015	Spring	BSPM361 - Elements of Plant Pathology - Lab	0	19
2015	Spring	BSPM361 - Elements of Plant Pathology - Lab	0	24
2015	Spring	BSPM361 - Elements of Plant Pathology - Lab	0	14
2015	Spring	BSPM798 - Research	18	9
2014	Fall	BSPM581A1 - Fundamentals of Bioag Sciences and Pest Mgmt	2	12
2014	Fall	HORT495 - Independent Study	18	3
2014	Fall	BSPM798 - Research	18	8
2014	Spring	AGRI180A1 - Topics in Sustainable Bioenergy	3	11
2014	Spring	AGRI180A1 - Topics in Sustainable Bioenergy - Recitation	0	11
2013	Fall	BSPM592 - Seminar BSPM Foundations	3	7
2013	Spring	AGRI180A1 - Topics in Sustainable Bioenergy	3	8
2013	Spring	AGRI180A1 - Topics in Sustainable Bioenergy - Recitation	0	8
2012	Fall	AGRI601 - Bioenergy Technology	3	4
2012	Fall	ENGR601 - Bioenergy Technology	3	2
2012	Fall	AGRI601 - Bioenergy Technology - Lab	0	4
2012	Fall	ENGR601 - Bioenergy Technology - Lab	0	2
2012	Fall	BSPM592 - Seminar BSPM Foundations	3	11

#### Guest Lectures:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u># of Guest Lectures</u>	<u>Delivery Mode</u>
2016	Spring	Soil & Crop Sciences-SOCR475 - Global Challenges in Plant and Soil Sciences	1	Face to Face
2015	Summer	Colorado Center for Biorefining and Biofuels NSF-REU Summer Seminar Series.	1	Face to Face
2014	Summer	C2B2 NSF-REU Summer Seminar Series	2	Face to Face
2014	Summer	Soil & Crop Sciences-SOCR796 - Plant Breeding for Drought Tolerance	1	Face to Face
2014	Spring	Soil & Crop Sciences-SOCR475 - Global Challenges in Plant and Soil Science	1	Face to Face
2013	Fall	Soil & Crop Sciences-SOCR460 - Plant Breeding	1	Face to Face
2013	Summer	C2B2 NSF-REU Summer Seminar Series	2	Face to Face

#### Evidence of Teaching Effectiveness (Annual Input)

##### Other Evidence

Spring 2013, AGRI 180A1–Topics in Sustainable Bioenergy

Spring 2013, AGRI 180A1–Topics in Sustainable Bioenergy - Recitation

Fall 2012, AGRI 601–Bioenergy Technology

Fall 2012, ENGR 601–Bioenergy Technology

Fall 2012, AGRI 601–Bioenergy Technology - Lab

Fall 2012, ENGR 601–Bioenergy Technology - Lab

Fall 2012, BSPM 592–Seminar BSPM Foundations

## **EXTENSION/ENGAGEMENT ACTIVITIES/ACCOMPLISHMENTS**

### **Conference Tour**

Hemp diseases and production limitations. Adult, Fort Collins, CO. Number of times program was made: 60. Percent Responsible: 30%. 2016.

### **Field Day**

Rocky Ford. Adult, Rocky Ford, CO. Percent Responsible: 10%. 2016.

Sorghum Field Days. Akron, CO. Percent Responsible: 25%. 2015.

Sorghum Field Days. Walsh, Akron, Brandon, CO. Total number of participants: 30. Percent Responsible: 30%. 2014.

Sorghum Field Days. Walsh, CO. Total number of participants: 30. Percent Responsible: 30%. 2011.

### **Presentation**

Aspen Science Festival - Science Street Fair. Aspen, CO. Total number of participants: 1500. Percent Responsible: 100%. 2014.

CSU Energy Laboratory Biofuels Tour. Adult, Fort Collins, CO. Total number of participants: 15. Percent Responsible: 30%. 2nd Quarter 2014.

Aspen Science Festival - Science Street Fair. Aspen, CO. Total number of participants: 1200. Percent Responsible: 100%. 2013.

Aspen Science Festival - Science Street Fair. Aspen, CO. Total number of participants: 1200. Percent Responsible: 100%. 2012.

Bioenergy outreach for fourth graders. Lochbuie, CO. Number of times program was made: 3. Total number of participants: 75. Percent Responsible: 60%. 2012.

Aspen Science Festival - Science Street Fair. Aspen, CO. Total number of participants: 1200. Percent Responsible: 100%. 2011.

## **COMMITTEES**

Program in Molecular Plant Biology Executive Committee, (January 2012 - Present).

Program in Molecular Plant Biology, (January 2011 - Present).

CSU Global Grand Challenges: Research and Translation, (2016).

Soil and Crops Functional Genomics Search Committee, (September 2014 - Present).

Soil and Crops Physiologist Search Committee, (October 2012 - May 2013).

College of Agricultural Sciences Research Seminar Series, (2016 - Present).

BSPM Coordinator of Programs Search Committee, (January 2015 - Present).

Ad hoc Future Positions Committee, (February 2014 - August 2014).

Fungal Pathology Search Committee, (July 2013 - May 2014).

### **PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

Society for Experimental Biology. (October 2014 - Present).

American Society of Agronomy. (2012 - Present).

American Society of Plant Biologists. (2010 - Present).

Crop Science Society of America. (2010 - Present).

The American Phytopathological Society (APS. (2004 - Present).

Sweet Sorghum Ethanol Association. (2012 - 2013).

Committee Member, Colorado Seed Growers Association (CSGA) Industrial hemp Variety Review Committee, Fort Collins, CO. (May 13, 2016 - Present).

Member, American Society of Agronomy. (2012 - Present).

Reviewer, Ad Hoc Reviewer, Plant Disease. (2012 - Present).

Member, Sweet Sorghum Ethanol Association. (2012 - Present).

Member, Program in Molecular Plant Biology (PMPB) executive committee. (2011 - Present).

Member, American Society of Plant Biologists. (2010 - Present).

Member, Crop Science Society of America. (2010 - Present).

Member, The American Phytopathological Society (APS. (2004 - Present).

Reviewer, Ad Hoc Reviewer, BARD. (2013).

Member, Department of Soil and Crops Plant Physiologist Search Committee. (2012 - 2013).

Reviewer, Ad Hoc Reviewer, NSF. (November 2013).

Reviewer, Ad Hoc Reviewer, BBSRC, Swindon. (March 2013 - April 2013).

Association of Public and Land-grant Universities, Loveland, CO. (2012).

Grant Writer' Seminars and Workshops, LLC, Fort Collins, CO. (2012).

Grower talk "Research on Sweet/Forage Sorghum for Biofuel or Forage". Colorado Sorghum Producers Annual Meeting. Granada, CO. March 20, 2012 (20 participants). (2012).

Montana State University, Bozeman, MT. (2012).

Nobal Foundation, Ardmore, OK. (2012).

Reviewer, Ad Hoc Reviewer, NSF-BREAD. (2012).

Member, NSF-Symbiosis, Defense and Self-recognition grant panel. (2012).

Plant and Animal Genome, San Diego, CA. (2012).

Sorghum Checkoff, Denver, CO. (2012).

Sorghum Field Day. Walsh, CO. September 27, 2012. (23 Participants). (2012).

Sweet Sorghum Ethanol Association, Orlando, FL. (2012).

USDA and DOE, San Diego, CO. (2012).

National Institute of Food & Agriculture, Arlington, VA. (2011).

Reviewer, Ad Hoc Reviewer, Plant Physiology. (2010).

Crop evolution display "Genetic variation within species allows artificial selection to create crop varieties" at Putnam Elementary School Science Carnival, Fort Collins, CO. (2009).

**OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH**

Guest Speaker, Aspen Science Center, Aspen, CO. (August 11, 2014).

Guest Speaker, Aspen Science Center, Aspen, CO. (August 11, 2013).

K-12 Outreach, Lochbuie Elementary School, Lochbuie, CO. (May 20, 2013).

School of Global Environmental Sustainability. (2012).

Guest Speaker, Aspen Science Center, Aspen, CO. (August 12, 2012).

Poudre Valley Hospital. (2010).

Putnam Elementary School. (2010).

Putnam Elementary School. (2009).

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