JANELLE DONAHUE YECKEL

Des Moines, Iowa 50311

812-760-4228 | janelle.donahue@gmail.com | janelledonahue.com | www.linkedin.com/in/jdyeckel

VERSATILE AGRICULTURAL INVESTIGATOR

Crop science researcher Affable collaborator facilitating data execution to deliver on goals with multi-disciplinary contributors and make the best product decisions. Demonstrated success navigating information systems and multi-faceted data to arrive at efficient, concise decisions. Skilled at providing applicable insight to pinpoint key problems, avoiding time / cost expenditures, and keeping projects moving forward.

- Accurate & Precise Data Collection
- Implement Scientific Solutions
- Data Management & Analysis
- Interpret & Communicate Results

PROFESSIONAL EXPERIENCE

DUPONT PIONEER, Johnston, Iowa
Senior Research Associate, Trait Phenotyping-Ag Traits 2012 to 2018

Accountable for plant phenotyping and data analytics for better understanding of biotech leads for maize drought tolerance and nitrogen use efficiency.

- Managed field experiments for Trait Phenotyping group and in collaboration with scientists across Ag Traits, ensuring data was collected at appropriate physiological plant stage through active experimental monitoring within and outside Iowa and conducting regular update meetings with stakeholders.
- Established statistical capabilities using Pioneer proprietary applications for Trait Phenotyping Group, achieving autonomy of data analysis and implementation of company best practices. Prepared statistical analysis for advancement decision meetings.
- Built Spotfire visualizations and curated libraries of field experiments, enabling rapid decision-making and communication across multiple groups. Provided dimension to phenotypic data by leveraging Pioneer informatics and collaborating with Data Science to connect molecular, physiological, and environmental data.
- Optimized and validated assay for phytohormone sensitivity for selected candidate leads and assessed genetic variation within selected germplasm that was integral to demonstrating proof of concept and lead advancement.
- Administrated Spotfire library reporting assay pipeline progress and result archiving. Enabled assay meta-analysis which fostered novel hypotheses about relationships between assay phenotypes and transgenic lead mode of action.
- Proposed departmentally-funded solution combining lab resources that saved lab member time and contributed to better adherence to requirements for research with regulated plant material.

UNIVERSITY OF MISSOURI, FRITSCHI LAB, Columbia, Missouri
Graduate Research Assistant 2009 to 2012

Researched role of N in soybean yield and yield gains from biological N fixation and fertilizer applications. Designed experiments and managed data collection for field and greenhouse studies. Managed or contributed to field trial planting and harvest, integrated pest management, treatment and irrigation application, non-destructive measurements and destructive harvests for root and above ground tissue biomass collections.

- Researched contributions of intensive soybean management, including poultry litter applications, and foliar nutrient applications to yield. Assessed physiological basis of Missouri contest-winning soybean yields, through multi-year field experiment.

- Conducted in-depth field and greenhouse studies of biological nitrogen fixation response to varying NH_4NO_3 applications in soybean cultivars released between 1933 and 2002, concluding no gain or loss of nodulation capabilities in soybean breeding over time.
- Established lab competencies the acetylene reduction assay using gas chromatography for determination of soybean N fixation activity.
- Developed protocol using Image J to count soybean nodules, allowing for measurement of additional trait over previous method.

PURDUE UNIVERSITY, JOHNSON LAB, West Lafayette, Indiana
Undergraduate Research Assistant 2003 to 2007
Collected data on selected weeds and crops and prepared herbicide treatments toward assessing herbicide efficacy at plant and plot level in extension-focused lab. Initiated and maintained greenhouse experiments toward understanding herbicide resistance of selected weeds of importance for Indiana's farmers.

- Ensured data ready for analysis, presentation, and reports by data entry of industry and academic research trials in Excel and Gylling Agricultural Research Manager.
- Researched glyphosate resistance and survivorship of selected *Conyza canadensis* populations obtained through resistant progenitors by conducting dose-response greenhouse experiment.

EDUCATION

Master of Science (MS), Plant, Insect, and Microbial Sciences, University of Missouri, Columbia, MO
Bachelor of Science (BS), Plant Biology, Purdue University, West Lafayette, IN

COMPUTER & INSTRUMENT COMPETENCIES

Microsoft Word, PowerPoint and Excel; Tibco Spotfire. SAS, Image J and WinRhizo, HTML. Certified to use Licor 6400XT and 6800. Proprietary applications for database management, statistical analysis, and data visualization.

CONFERENCE POSTERS

Donahue, J.M., Fritschi, F. 2010. *Nodulation Response to Different Soil Mineral Nitrogen Concentrations in Modern and Obsolete Soybean Cultivars.* The International Annual Meetings of the Agronomy Society of America, Crop Science Society of America, Soil Science Society of America, Long Beach, CA.
Donahue, J.M., Fritschi, F. 2010. *Soybean Nodule Number, Size and Weight in Obsolete to Modern Cultivars in Response to Applied Nitrogen.* The 4th Annual PBCC/National Association of Plant Breeders, Des Moines, IA.
Donahue, J.M., Davis, V.M., Kruger, G.R., Johnson, W.G. 2007. *Glyphosate Dose-Response of Selected Indiana Horseweed Biotypes.* Poster presented at the 61st Annual Meeting of the North Central Weed Science Society, Milwaukee, WI.

SERVICE & RECOGNITION

Recipient, Gerald O. Mott Award, Division of Plant Sciences, University of Missouri-Columbia, 2012
Member, Graduate Student Sub-committee, Membership and Society Identity Committee, ASA-CSSA-SSSA, 2011
Delegate, Graduate Student Congressional Visits in Washington DC, ASA-CSSA-SSSA, 2011

Recipient, Division of Plant Sciences Travel Grant, University of Missouri, 2010 & 2011

Second Place Undergraduate Individual & First Place Graduate Team Member, NCWSS Weed Contest, Fairfield, IA, 2007

First Place Graduate Team Member, NCWSS Weed Contest, York, NE, 2006