

Sarah Frye

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Education

Ph.D. in Agronomy, Emphasis in Crop Production
Kansas State University, Manhattan, KS

Expected Graduation: Dec 2025
GPA: 3.88

B. S. in Agronomy, Minor in Animal Science
Kansas State University, Manhattan, KS

Graduation: May 2018
GPA: 3.339

Teaching Experience

Collegiate Crops Team Coach, Kansas State University, Fall 2022

Oversaw the individual study course, Agronomy 450: Crops Team, and organized team practices. Taught the concepts of the grain grading portion to new and returning students, answered questions about identification of plants and seeds, and helped students learn the rules for seed analysis.

Graduate Teaching Assistant, Kansas State University, January 2022-May 2022

Taught Agronomy 350: Plant & Seed Identification laboratory section for one semester. The class contains approximately 15 students and is held once a week for two hours. Taught material that supports the collegiate crops team, prepared and cleaned up lab materials, facilitated weekly lab quizzes, assigned and graded in-class assignments and quizzes, and helped students outside of class with studying material for the next quiz.

Assisted with Agronomy 602: Agronomy Capstone Experience for one semester. Assisted with coordinating the semester schedule, created in-class assignments and homework, graded assignments, facilitated in-class discussions, and provided assistance outside of class for students.

Graduate Teaching Assistant, Kansas State University, August 2021-December 2021

Taught Agronomy 360: Crop Growth and Development laboratory section for one semester. The classes contained 12 students and were held once a week for two hours. Taught material that supported class lecture, prepared and cleaned up lab materials, facilitated lab activities and discussions, assigned and graded homework, initiated and facilitated review and help sessions, organized makeup lab sessions, and met with students one-on-one to discuss homework and exams. Created a lesson plan and homework for one lab session. Assisted in the lecture section, providing supplemental information and administering exams.

Undergraduate Teaching Assistant, Kansas State University, August 2016-December 2017

Taught Agronomy 220: Crop Science laboratory sections for three semesters. The classes contained approximately 24 students and were held once a week for two hours. Taught material that supported class lecture, prepared and cleaned up lab materials, facilitated lab activities and discussions, assigned and graded homework and quizzes, initiated and facilitated weekly review

and help sessions, chaperoned field trips, organized makeup labs and quizzes, and met with students one-on-one to discuss homework.

Assisted in Agronomy 350: Plant & Seed Identification for one semester. Graded assignments covered class in the absence of the professor, and prepared materials for class.

Collegiate Crops Team Assistant Coach, Kansas State University, Fall 2017, Fall 2021

Helped with the individual study course, Agronomy 450: Crops Team, as well as attended team practices. Teach the concepts of the grain grading portion to new and returning students, answer questions about identification of plants and seeds, and helps students learn the rules for seed analysis.

NACTA Crops Team Assistant Coach, Kansas State University, January 2021-Present

Helped with the individual study course, Agronomy 600: Crop Problems-NACTA Crops Team. Prepared and created questions for the lab practical and plant identification sections. Attended team practices to assist in answering questions and working one-on-one for various topics within the crops contest.

GROW Workshop, Spring 2014-Spring 2018

Taught middle school girls, 6th-8th grade, about reproduction in plants and plant botany. This workshop had four 45-minute sessions on a Saturday in the spring, with approximately 12 students per rotation.

Kid's Field Day, September 2014, 2015, 2016, 2017

Taught elementary students around 3rd grade about crops and what food products are made from them. The field day covered two separate days, and approximately 300 students were in attendance. Teaching sessions were covered in 20-minute rotations.

Boy Scout Merit Badge, Spring 2015, Spring, 2016

Taught boy scouts about crops and plant botany for merit badge requirements. About 24 boy scouts were in attendance. The event lasted all day. Identification, flower and plant botany, native species, and crop uses were covered.

Research

Graduate Research Assistant, Kansas State University, Manhattan, KS, January 2021-present

Conduct research on the introduction of winter and spring field peas (*Pisum sativum* L.) into Kansas cropping systems across a range of precipitation and rotations. Subsequent crop yields and soil health are analyzed as measurement of integration into the system. Plan experiment setup, establish experiments, record in-field measurements, collect biomass samples, collect soil samples, analyze soil samples in lab, and analyze data using SAS, excel, and JMP Pro. Project and results are presented at lab and extension meetings to educate on the incorporation of field peas into rotations.

Papers, Posters, and Presentations

Nelson, N. O., Roozeboom, K. L., Yeager, E. A., Williams, J. R., Zerger, S. E., Kluitenberg, G. J., Tomlinson, P. J., Abel, D. S., & Carver, R. E. (2022). Agronomic and economic implications of cover crop and phosphorus fertilizer management practices for water quality improvement. *Journal of Environmental Quality*, 00, 1– 13.
<https://doi.org/10.1002/jeq2.20427>

Zerger, S.E., Nelson, N.O., and Roozeboom, K.L. 2021. Agronomic Implications of Cover Crop and Phosphorus Fertilizer BMPs for Water Quality Improvement. Poster. ASA-CSSA-SSSA, Salt Lake City, UT.

Professional Development

Graduate Student Leadership Conference, American Society of Agronomy, Nov. 6th-10th, 2021

The American Society of Agronomy host a graduate student leadership in conjunction with their annual meeting. This conference provides professional and leadership development to graduate students, and will include sessions on networking, professional etiquette, leadership, and oral and written communication. Attend the mandatory sessions at the beginning of the conference and attend at least two additional professional development sessions.

Agronomy Ambassadors, 2014-2018

Served as a representative of the agronomy department to visiting students. Gave tours of Throckmorton to prospective students, answered student questions about agronomy, and assisted in agronomy orientation class. Helped with recruitment of prospective students at career and major/minor fairs at Kansas State. Helped with Willie and the Beanstalk contest held during Kansas State University Open House.

Awards and Scholarships

WSWS 2 nd Graduate Team & 2 nd Overall Individual	July 2023
NCWSS 2 nd Graduate Team	July 2022
NACTA Graduate Teaching Award	June 2022
NCWSS 2 nd Graduate Team	July 2021
NCWSS High Undergraduate Team and Overall Individual	July 2018
ASA, CSSA, and SSSA Outstanding Senior Award	Spring 2018
NACTA Agronomy Contest 2 nd Team	Spring 2018
Region 5 Soils Judging Contest 2 nd Team	Fall 2017
NCWSS High Undergraduate Team	July 2017
National Crops Contest 1 st Team and 2 nd Individual	Fall 2016
Australian University Crops Contest High Team	Fall 2016
NCWSS 2 nd Undergraduate Team	July 2016

Scholarships: Mark S. & Karen Nelson-Vanier Family Scholarship, Armbrust Fund for Excellence, Irvin D. & Dora Mae Atkins Family Scholarship, Schrader and Massier Graduate Excellence Fund, Agriculture Enhancement, Gilmore Memorial Scholarship, Harold Swartley Crop Judging Scholarship, Kansas Crop Improvement Association Scholarship, Wheat State Agronomy Club Scholarship, Miles Family Scholarship

Community Service

Kansas Corn Growers Educational Booth	December 2021
Cheney, KS Commodity Distribution	2013-Present
Cheney United Methodist Church Fair Booth	2010-Present
Kansas State Fair Assistant Judge for 4-H & Open Class entries	2015-2021
Kansas State Fair 4-H Crop Judging Contest	2015-2017, 2022
Help with FFA Agronomy Contest	2016-2018, 2021-2022
Adopt-A-Family	December 2014, 2015

Cheney United Methodist Church VBS 2012-2016

Leadership Activities

Kansas Corn Corps: Young Farmer Business Development Program	2021-2022
Agronomy Graduate Student Assoc. Cookie Chair	2022
Agronomy Graduate Student Assoc. Social Media Chair	2021
Agronomy Academic Coordinator Committee	Fall 2021
Wheat State Agronomy Club President	May 2016-May 2018
Agronomy Ambassador	Spring 2014-Spring 2018
National SASES Membership Development Chair	2017
Wheat State Agronomy Club Ag Council Representative	Fall 2015-Spring 2016

Professional Organizations and Activities

Kansas Corn Growers Association; National Corn Growers Association; North American Colleges and Teachers of Agriculture; American Society of Agronomy; Crop Science Society of America; Certified Crop Advisors; Kansas Farm Bureau, Kansas State Agronomy Graduate Student Association; Wheat State Agronomy Club; Mid-America CropLife Association; CropLife Ambassador; Smurthwaite Scholarship House

Work Experience

Instructor/Academic Coordinator, Kansas State University, Manhattan, KS, March 2023-Present
Teaching responsibilities include AGRON 101: Agronomy Orientation, AGRON 405: Internship in Agronomy, and coordinating undergraduate research experience programs. Provide support for the departmental faculty advising program and the advising of about ten or more undergraduates. Serve as a Wheat State Agronomy Club Advisor, Coordinate the Agronomy Ambassador program, coordinate undergraduate student enrollment in the department, and serve as the department contact for undergraduate job placement. Active participant in recruitment and retention of Agronomy undergraduates and tracking student enrollment and graduation rates for the assessment program of the department.

Graduate Research Assistant, Kansas State University, Manhattan, KS, January 2021-Present
Manage field trials at four locations across Kansas. Manage and coordinate with research staff for planting, spraying, and harvesting operations. Collect and analyze in-season data through soil sampling, biomass collection, and grain harvest. Perform lab work for soil health analyses and analyze data. Oversee undergraduate student workers and assign tasks for field and lab work.

Agronomist/Office Administrator/Certified Applicator, Crop Service Center, Abilene, KS, July 2019- September, 2020

Scouted fields, took soil samples, and provided agronomic recommendations. Managed the precision agronomy mapping, recommendations, and grid soil sampling. Managed accounts payable, branch quarterly newsletter and marketing to customers. Operate various sprayer equipment for commercial fertilizer and pesticide applications.

Agronomist/Seed Sales, Bartlett Cooperative Association, Bartlett, KS, June 2018- May 2019
Provided agronomic consulting and precision ag services for producers. Scouted fields, took soil samples, and made recommendations to producers. Assisted with seed, chemical, and fertilizer sales to producers. Managed bulk seed, seed warehouse and seed inventory for all locations. Treated and delivered soybean and wheat seed to producers.

Intern Scouting Manager, Mid Kansas Coop, Moundridge, KS, February 2017- November 2017

Assisted in the selection of 2 interns, evaluated their skills and knowledge, and ensured quality of reports. Updated design of scouting program, tested new precision ag app and created standard operating procedure for usage. Assessed wheat management of fertilizer and fungicide applications and determined financial impacts. Scouted fields, took soil and plant tissue samples, and provided recommendations.

Scouting Intern, Mid Kansas Coop, Moundridge, KS, May 2016-August 2016

Responsible for scouting 10,000 acres each week for insects, weeds, and disease. Took soil and tissue sample for use by the field sales and agronomy managers. Interacted with field sales, agronomy managers and producers weekly to assist with management decisions.