

Nebraska Remote Researchers: The Crop Root Microbiomes in Your Backyard Research Project Summary

My name is Alexis Bodlak. I live in the country near Thurston, Nebraska. I am seventeen years old and attend Pender Public High School in Pender, Nebraska, as a junior. Coming from a small town in Northeast Nebraska, I have spent my entire life surrounded by agriculture. In fact, I pass more corn and bean fields than cars on my ten-minute drive to school! My grandfather, great uncle, and father have farmed corn and soybeans in Nebraska for decades. As a farm kid who grew up playing in the cornfield behind my house (or bean field depending on the year), I thought that I had a pretty good idea about what was going on. Surprisingly, my engagement in this research program has shed some light on the more complex aspects of farming I had never given thought to.

They say that seeing is believing. Which is true- most of the time. However, this entire research project is centered around microbes in the soil, something that we can only marvel at through a microscope. My love agriculture, curiosity, and a fascination with what I *can't* see have led me to connect with various mentors and peers. My agricultural education advisor, Mr. Bartlett brought this opportunity to my attention. Living in a rural location often means that I am at a disadvantage in terms of opportunities to engage in research, camps, and other events at the university. Researching remotely allowed me to satisfy my hunger for knowledge with equipment and guidance provided by UNL. It was exciting to ask questions and work with knowledgeable faculty. I was able to complete the research on my own time while also collaborating with others. My work schedule prevented me from joining in on most of the zoom calls throughout the weeks. The few times I was able to join the meetings, I was pleased with the amount of new information and helpful tips that were presented. Most of what I learned during the project was based on research methods and how to properly use lab equipment and follow procedures.

I could not have asked for a better mentoring relationship with all of the UNL professors and personnel. The ability to engage in meaningful research was extremely exciting to me as I am eager to learn more about the field of scientific research. As I previously mentioned, my location has limited the number of research opportunities that are available to me. I will never be able to fully express how grateful I am for the opportunity to conduct research in a field I am passionate about. Before this project, I was pretty sure that I wanted to spend my career in a lab. But, I was never one hundred percent sure. I had no way to see if that type of work brought me joy. The rush of adrenaline and enthusiasm that I experienced on the day that I prepared and collected samples solidified my plans for after high school. My passions lie in learning about human nutrition and sustainable agricultural practices. While this project does not directly relate to my interests, I am now more motivated than ever to pursue research opportunities in college.

Again, thank you for an outstanding research opportunity. I hope that more remote research projects will be available through the university in the future!