GreenLands BlueWaters

Voices From Our Network

The Civic Scientists

The next generation of continuous living cover (CLC) researchers reflect on the current moment in history and reimagine the future.

Kyle Sherbine

2020

My current Master's degree research project investigates quantifying soil carbon, nitrogen, and phosphorus in newly drained fields in Minnesota by examining a selection of samples including greenhouse gases, soil cores, surface water and tile water. As subsurface drainage expands in Northwest Minnesota, this work will help growers better understand this practice. Drainage ensures soils are properly aerated and reduces nutrient and soil loss from runoff. With reduced nutrient loss, growers could decrease the amount of fertilizer needed while maintaining or increasing their yield. The goal of this project is to provide growers, the backbone of our food and agriculture systems, with research-based recommendations regarding fertilizer practices and long-term soil health management for sustainable agroecosystems. Sustainable agroecosystems are vital for meeting communities' demands while natural resources are uninhibited for future generations. Agriculture is linked to climate change, water scarcity, land degradation, but developing sustainable systems can enhance environmental quality,

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minimize land degradation, and maximize nonrenewable sources while meeting the food need. As researchers and growers continue to examine these systems, not only should they consider biological and environmental facets, but economic and social as well.

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responsibility to do my part in creating a more diverse workforce and inclusive world; the type of world I want to leave behind. For the first time in my career, solving problems is more than just applying knowledge to find a solution, but understanding the implications different results may have. With this work, it is critical to understand the risks and benefits. Growers are relying on me for clarity and transparency.

Right now, our society is facing a global pandemic and racial reckoning; it's a heavy time. What brings me hope is knowing that change happens one person at a time. I have experienced what it's like to be the odd person out and feel like I do not belong. Too often people have tried to tear me down instead of helping me rise-up to the occasion. I have been told to get into a different field simply because of where I came from or how I looked. I owe it to those who paved the way for me to be where I am today and those who will follow in my footsteps. I hope to be a positive influence while collaborating with those around me. To this point in my master's program, I have only performed field work, but I know that I have the ability to get the most out of this program over the next two years at The University of Minnesota. As I begin my graduate school career, I have so much hope and optimism that I can be a voice of reason and influence of change.

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Kyle Sherbine **University of Minnesota**

Kyle is a first-year graduate student in the Department of Soil, Water, and Climate at The University of Minnesota. Kyle grew up in Beaver, Pennsylvania and graduated from Penn State with a degree in geobiology. He served as a health outreach coordinator in Juneau, Alaska for one year as an AmeriCorps member. In his free time, Kyle enjoys hiking, travelling, and photography.