



**Green Lands**  
Blue Waters

## 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.

## A call to diversify our fields

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I would like to thank Green Land Blue Waters (GLBW) for the opportunity to submit this perspective piece. As a graduate student and a person of color at the University of Minnesota, I am proud to be working against two distinct, yet major deficiencies in the agriculture sector in the US concerning the lack of diversity. Modern agriculture has resulted in greatly reduced biological diversity in the US agricultural landscape, contributed to mainly by the monotony of the two-crop system of corn and soybeans. Modern agriculture is also notorious for being one of the least diverse fields regarding study and research, land ownership, and concentration of wealth and power. It is important to recognize that both of these systemic flaws are prevalent in our society. Therefore, a deliberate effort to improve on these shortcomings is the crux of this call to diversify our fields.

The development of winter annual and perennial crops is an important initiative to complement the aforementioned two-crop system, while reestablishing the lost diversity back to the US landscape. The ecosystem services offered by these new

crops are an important piece of the sustainable agricultural intensification puzzle, where the goal is to maximize productivity while minimizing agriculture's adverse effects on the environment. As a graduate student, I am fortunate to be working towards this goal with the domestication and breeding of pennycress - a new oilseed crop species. Pennycress is being directly domesticated from a weedy species to a sustainable source of oil for biodiesel and aviation fuels. It is one of many winter annual and perennial crop species actively being developed at the University of Minnesota to help restore lost biodiversity back on the agricultural landscape. However, for this piece, I would like to focus on a different diversity issue altogether.

A recent study by Horst and Marion (Horst & Marion, 2019) reported that "from 2012 to 2014, white people generated 98 percent of all farm-related income from land ownership and 97 percent of the income that comes from operating farms. On the other hand, farmers of color (Black, Asian, Native American, Pacific Islander, and those reporting more than one race) comprised

less than 3 percent of non-farming landowners and less than 4 percent of owner-operators.” This shows clear disparities between white farmers and minority farmers. The abysmal lack of diversity and representation in US agriculture is not an accident. This inequity is deeply rooted in structural and systemic racism against people of color. Federal Homestead acts mainly helped white settlers and corporations gain access to massively subsidized land while driving out Native American and excluding minority landowners. These problems were further exacerbated with discriminatory laws preventing people of color from owning land in the early 1900s. The aftereffects of these century old laws are still felt today. A telling instance is the massive decline of Black or African American farm owner-operators from 14% in 1910 to only 1.5% in 2012. The US system is not broken; it was built as a tool to oppress people of color, and in that regard, it is functioning extremely well. It is

our collective moral duty to depose of this unjust system and challenge existing social inequities in our food system and the larger community.

As a young scientist in Agriculture today, I am encouraged by the increased public dialogue regarding racial justice and the active work being done to address issues brought forth by the lack of diversity in both our crop systems as well as the farmers/ landowner demography. Ultimately, I am hopeful that we can realize the virtues of diversity in our fields and establish a more equitable US food system.

## Reference:

Horst, M., & Marion, A. (2019). Racial, ethnic and gender inequities in farmland ownership and farming in the U.S. *Agriculture and Human Values*, 36(1), 1–16. <https://doi.org/10.1007/s10460-018-9883-3>



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