

2023 Farm Bill Recommendations to Enable Diverse Crop Rotations

The Sustainable Food Lab is a 501c3 with a mission to scale climate smart, regenerative, and economically viable farming systems through mainstream agriculture. We work with food and beverage companies who have commitments to reduce greenhouse gas emissions and increase the number of regenerative agriculture acres that provision eco-system service benefits.

The landscape across the Corn Belt is dominated by just two crops – corn and soybeans. This system is inherently leaky; crops grow during the summer months and leave the land uncovered the remainder of the year when soils are vulnerable to precipitation and wind. Extending the rotation with a cool season small grain (oats, wheat, rye, triticale) coupled with a cover crop can keep the land covered year-round and offer an essential unlock and speedier path to profitable regenerative agriculture farming systems. Small grains were once a common part of Midwest cropping systems but are now scarce in the Corn Belt. Markets have disappeared as animals moved away from the farm and the feed system became optimized for corn and soy.

Together with Practical Farmers of Iowa, corporate food and beverage partners, and non-profit partners, we have supported growers over the last seven years to plant small grains and nitrogen fixing cover crops into their corn and soy rotations. We have documented the agronomic and environmental value that can be captured through this diverse rotation. We have learned that farmers want to diversify and grow small grains but have what feels like insurmountable challenges to scale production. In this program farmers have reported success in:

- Building soil health
- Lowering inputs
- Breaking up pest cycles
- Spreading labor across the year
- Building community and knowledge sharing among farmers trying new practices

However, farmers face barriers and gaps that USDA can help address through the 2023 Farm Bill. Notably, these include:

- A lack of small grains infrastructure
- Crop insurance restrictions that prevent climate-smart planting methods
- NRCS, crop insurance and input representatives, and other trainers have limited training on climate smart methods, leaving farmers to do their own research and seek out learning opportunities among their community.
- The NRCS funding application process, funding timeline, and/or verification requirements can be prohibitive.

Given these cited barriers, the Sustainable Food Lab has put forth the following recommendations to the 2023 Farm Bill.

1) Restore regional storage, transportation, and processing infrastructure for small grains

The grain infrastructure in the Corn Belt is optimized for corn and soy. Farmers must invest in specialized equipment and infrastructure to store, move or process small grains. There is an urgent need for guaranteed, expanded offtake markets for alternative crops and equitable access to

specialized infrastructure (i.e., on-farm storage). These upgrades will be required before growers consider transitioning from the safety of corn and soy to other rotation crops.

Farm Bill title: VI (Rural Development)

Upgrade and expand infrastructure to reduce critical bottlenecks that constrain alternative crops like small grains. Establish a processing program for small grains that provides funding to help farmers and processors expand their capacity, encouraging sustainable domestic growth of small grains and related market opportunities.

2) Ensure crop insurance incentives encourage climate smart and farmer friendly practices

The Farm Bill must maintain a safety net for American farmers while removing barriers in the Federal Crop Insurance Program that prevent farmers from diversifying their corn/soy rotation or implementing other climate friendly practices. Creating common sense incentives for risk-reduction practices will promote soil health and ecosystem benefits and address farm profitability. Farmers are currently disincentivized from practices that require short term risk but lead to better soil quality, like cover cropping and reduced or no-till. High quality soil retains water and nutrients, requiring farmers to use less inputs and improve profitability. It also improves resiliency of the land, reducing the cost of payouts for disaster programs.

Farm Bill title: XI (Crop Insurance), VII (Research, Extension, and Related Matters)

- Direct USDA to further study the impacts of diverse crop rotations, cover crops, and other production practices on enhancing crop yields, soil health, and ecosystems, reducing risk, and improving farm profitability.
- Ensure the Crop Insurance Program considers the scientifically proven risk-reduction benefits of climate-smart practices, ensuring the program is not biased against farmers who try new conservation methods who may not be able to provide years of production history with those methods, while maintaining the program as a safety net for all producers.

(The bipartisan Agriculture Innovation Act and the bipartisan Cover Crop Flexibility Act address these issues.)

3) Support conservation and promote accessible training and education on climate smart agriculture practices

US farms are losing an average of 4.6 tons of topsoil a year per acre, costing them \$44 billion annually.¹ Rising input prices have forced farmers to shoulder costs that could be avoided by implementing soil health practices. Farmers need support in implementing practices that regenerate the soil, which will both keep money in their pockets and improve environmental outcomes. Current NRCS technical assistance and education programs are underfunded, and some lack the technical instruction needed to support producers to adopt climate smart practices.

¹ Thaler, E. A., Larsen, I. J., & Yu, Q. (2021). The extent of soil loss across the US corn belt. *Proceedings of the National Academy of Sciences*, 118(8). <https://doi.org/10.1073/pnas.1922375118>

Farm Bill titles: II (Conservation), VII (Research, Extension, and Related Matters)

Training and research

- **Create and finance a "train the trainer curriculum"** for USDA-NRCS, land grants and universities, including Historically Black and Tribal colleges and universities, that prioritizes climate smart practices and biological diversity in farming. This curriculum could be offered via online trainings for NRCS field agents and other USDA and relevant government agency staff. Make a public-facing version for farmers and ranchers as well as partner organizations such as Certified Crop Advisors and other technical advisors.
- **Appoint an NRCS official** in each state to coordinate these trainings in the field and to ensure land-grant extension agents are trained.
- **Expand funding and create further public-private partnerships** for and with land grants and universities, including Historically Black and Tribal colleges and universities, to focus on climate smart agriculture education including soil health practices, climate adaptation practices, and nutrition.
- **Develop and fund NRCS** regional farmer-to-farmer networks for knowledge sharing.

Conservation programs

- **Improve the NRCS conservation approval process by:**
 - Reducing the time frame for approval of practice standards,
 - Performing a review of existing internal and third-party evidence-based research and waiving the research period for proven practices, and
 - Ensuring the process for practice suggestion and adoption is transparent and accessible.

This list of recommendations is built on the need for public sector investment to close gaps and to ensure equity in resource distribution that the private sector cannot close on their own. We appreciate Congress' leadership conservation efforts, and we are eager to be a partner in making public-private progress towards shared conservation goals.