

Farm Bill: Enhance the focus on alternative protein research and development within the Agriculture and Food Research Initiative.

Agricultural research is an important driver of the American economy, yielding new insights on how to make better food, steward our natural resources, and improve food security and nutrition. Alternative protein research also presents an extraordinary opportunity to secure all of those benefits. Recent breakthroughs have created popular plant-based products from American-grown crops, unearthed powerful new methods of cultivating proteins, and launched entirely new industries that employ thousands of American workers. Including alternative proteins as a new research activity within the Agriculture and Food Research Initiative (AFRI) would ensure projects are eligible for funding and increase the likelihood of future innovations and research breakthroughs that lead to significant economic benefits in the United States.

GFI's Recommendation

AFRI has six statutory priority research areas and 42 sub-activities across these categories.¹ Codifying “alternative proteins” as an additional sub-activity would allow AFRI to prioritize alternative protein research alongside other high-value projects. This addition will help researchers secure more funding for innovative research and signal the importance of alternative proteins now and moving forward.

Alternative proteins are a key growth area in the American economy

Secretary of Agriculture Tom Vilsack has recognized the economic benefit of investing in public research, stating, “Studies have shown that every dollar invested in agricultural research creates \$20 in economic activity.”² According to a 2021 report, alternative proteins could support 9.8 million jobs and \$1.1 trillion in economic value globally by 2050.³ That same report found that those incredible benefits will only occur if governments substantially increase public investment in research and development.

The entire supply chain stands to benefit from research into this value-added agriculture—from

the American farmers growing crops to the workers producing, transporting, and selling the end products to consumers having more options on the menu.

Research is necessary to ensure the strongest possible sector

This industry will grow in accordance with demand for alternative protein products, and American shoppers choose what to eat primarily based on taste and price, not ideology. More research is needed to improve the sensory profile and price of these products to appeal to all consumers.

Open-access agricultural research has yielded some of the most important breakthroughs in

alternative proteins, from the science behind Beyond Meat’s groundbreaking plant-based meats to new approaches to cultivating meat directly from cells. Advancing research can further improve the production processes behind alternative proteins, allowing them to be as affordable, delicious, and accessible as their animal-based counterparts.

Alternative protein research is key to the American bioeconomy

The United States Department of Agriculture (USDA) recently joined four other agencies and the Office of Science and Technology Policy to publish a report laying out “bold goals” to harness research and development and support U.S. biotechnology.⁴ The USDA explicitly recognizes alternative proteins as a key research priority and identifies several research needs:

- The structural design and food architecture of alternative protein (e.g., plant-based, fermentation-derived, and cultivated).
- Food components that make novel foods more palatable, affordable, and easier to prepare.
- Feasibility studies for protein and fat sources, including products resulting from precision fermentation or that use byproducts from one process as ingredients in another.
- Standardized biomanufacturing methods, tools, and equipment, as well as systems for measuring nutrition, sensory properties, and sustainability (e.g., life cycle analyses).

Codifying alternative proteins as a research activity under AFRI is an important way that Congress can support USDA’s bold goals for the future of the bioeconomy.

American research on alternative proteins has been strong but needs to increase

The United States has a proud history of funding research to drive innovation, but we have only dipped our toe into alternative protein research. USDA has awarded about \$15 million in research funding to 12 alternative protein research projects at universities across the country since 2020.⁵ These projects begin to address some critical research areas, but further research is needed to realize the economic promise of alternative proteins.

American leadership in the alternative protein sector will suffer if we do not invest more public funding into research. Early federal funding helped support the development of renewable energy, LEDs, the internet, supercomputers, Google’s search engine, and GPS. The United States funded early research on electric vehicle batteries but failed to sustain a sizable investment. We have now fallen far behind China in lithium-ion battery production.⁶ We have a similar opportunity with protein production, and the time to seize it is now.

About GFI

The Good Food Institute is a 501(c)(3) nonprofit working internationally to make alternative proteins like plant-based and cultivated meat delicious, affordable, and accessible. GFI advances open-access research, mobilizes resources and talent, and empowers partners across the food system to create a sustainable, secure, and just protein supply. GFI is funded entirely by private philanthropic support.