

## **Farm Bill:** Direct USDA to recognize Centers of Excellence for Alternative Protein Innovation, including at 1890 Institutions.

USDA-recognized Centers of Excellence at American universities catalyze agricultural research, develop a capable and engaged workforce, and provide a hub for public-private networks in growing fields. Recent Farm Bills have directed the Secretary of Agriculture to recognize and fund new Centers of Excellence, including at minority-serving 1890 Institutions. GFI recommends the 2023 Farm Bill direct USDA to recognize and fund at least three new Centers that focus on the alternative protein field, including at least one at an 1890 Institution.

### **GFI's Recommendations**

- Direct the Secretary of Agriculture to recognize at least three Centers of Excellence focused on alternative protein research and development.
- Authorize \$15 million in annual funding for the new Centers of Excellence focused on alternative proteins.
- Make student success and workforce development top priorities at the new Centers of Excellence to ensure students have the skills and education needed to create a robust and innovative workforce.
- Recognize at least one of the new Centers of Excellence at an 1890 Institution.

### **Multidisciplinary alternative protein research is primed for future Centers of Excellence**

Alternative proteins can offer huge benefits for the agricultural sector. Universities and corporate innovators in the United States can combine forces to advance cutting-edge research, resolve technological hurdles in the agricultural sector, and develop a highly skilled workforce. One report finds that the industry could support up to 9.8 million jobs and \$1.1 trillion in economic value globally by 2050 with appropriate government support.<sup>1</sup> In particular, governments can support the development of a capable scientific and engineering workforce, which

alternative protein startups report as a bottleneck to success.<sup>2</sup> Further, in light of recent disruptions to the food supply chain, a diversified protein supply should be a top priority. Alternative proteins also do not contribute to antibiotic resistance and zoonotic diseases, like avian flu.<sup>3</sup>

The science of alternative proteins is a fast-developing field with many opportunities for innovation. Alternative protein research sits at the intersection of several academic disciplines, from biology to engineering to social sciences. To unlock the myriad economic and social benefits of alternative proteins, these experts must collaborate on research to formulate new

products, design top-of-the-line equipment, and ensure successful market entry. Public-private partnerships between academics and the alternative protein sector would encourage two-way information sharing and accelerate the private adoption of new research and technologies. Federally recognized Centers of Excellence can facilitate, incentivize, and formalize these interactions.

## Centers of Excellence are important field catalysts

USDA's National Institute for Food and Agriculture (NIFA) administers the Centers of Excellence program to create academic and professional networks around specific research areas and stimulate the development of a capable workforce.<sup>4</sup> Centers of Excellence receive priority for competitive grants under NIFA. Further, Centers provide resources for students to engage with promising research areas and obtain formal credentials in the field.

### Case Study: Tufts University

Established in 2021, the Tufts University Center for Cellular Agriculture is the first U.S.-based consortium to focus on an alternative protein field, uniting the University's strong engineering, nutrition, biology, and public policy disciplines to advance the public knowledge around cultivated meat and precision fermentation.<sup>5</sup> In addition to publishing scientific studies, developing new technologies, and studying the effects of cellular

agriculture, the Center helps develop the alternative protein workforce by offering students the opportunity to earn the world's first Certificate in Cellular Agriculture, encouraging both academic and private-sector careers. The Center is also officially partnering with some of the biggest companies in the food sector.<sup>6</sup>

Unfortunately, Tufts is the only multidisciplinary Center that currently exists for alternative protein research, and public funding is set to terminate in 2026. Centers of Excellence could provide longer-term funding on a larger scale than a single agency grant. The end result would be greater certainty for researchers about completing medium- and long-term research projects, more collaboration across scientific disciplines, specialized education programs, and a greater ability to partner with industry.

## Centers of Excellence at 1890 Institutions

The 2018 Farm Bill directed the Secretary to recognize three new Centers of Excellence at 1890 Institutions, which are historically Black land-grant universities.<sup>7</sup> Many of these universities are premier research institutions with students and faculty excited about agricultural innovations. Likewise, the alternative protein industry would benefit from a more diverse, highly trained workforce. USDA can equitably foster these high-value professional and academic networks by locating an alternative protein Center of Excellence at an 1890 Institution.

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## 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.